EVALUATION AND THE ELEMENTARY CURRICULUM

SHANE & McSWAIN

REVISED

Evaluation and the Elementary Curriculum

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EVALUATION

and the

HENRY HOLT AND COMPANY

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Preface to the Revised Edition

SINCE *Evaluation and the Elementary Curriculum* was first published in 1951 there have been a number of developments in the field of education which have made it desirable to modify the text in a number of respects. The sweep of social and technological change, international developments, widespread public discussion of education, and new concepts in education, for example, have combined to make a thorough revision necessary in order to keep the book of maximum interest and value to teachers and students of education.

In the present edition, Chapter 1 has been completely rewritten to stress how both conflicting opinions of what constitutes good education and changing socioeconomic, technological, and political conditions create a great need for reappraisal of elementary education and the development of new insights as to the purpose of education. Chapters 2 through 5 have been expanded, and Chapter 6, a completely new one, has been added in order to permit a detailed review of tools and procedures useful in curriculum evaluation.

The second part of the book, which concerns itself with the curriculum, is introduced by two new chapters that interpret the meaning of "curriculum" and appraise the various forms in which it can be designed so as to foster learning. Chapters 9 through 13 are new interpretations of good curriculum practices in the language arts, mathematics in the elementary school, and the social studies and science programs, and include a more extensive appraisal of special services and special fields in the first eight grades.

Part III, which encompasses Chapters 14 and 15, explores ways in which educational leadership in curriculum planning can be improved, and challenges the reader to apply his best efforts to education so that the America of tomorrow will be living proof ". . . that the school workers of today have made their evaluation of the elementary curriculum with wisdom and courage."

In order to make the 1958 edition more useful, discussion questions, suggested activities, and annotated readings have been added at the close of each chapter. A revised list of 56 useful evaluation instruments has been prepared in Appendix C, and Appendix D is a directory of certain publishers who produce testing and evaluation materials.

Evaluation and the Elementary Curriculum retains the basic viewpoint that evaluation is a process through which parents, children, teachers, administrators, and the whole community together share both in examining the curriculum and in reaching conclusions regarding the goals of good elementary education and the nature of the program which gives it meaning and substance. The appraisal process is conceived as a means through which all persons concerned with the elementary curriculum share in designing it, with the result that it reflects the values and embodies the citizenship outcomes that they seek.

Once again the writers wish to express their deep appreciation to those school workers in elementary classroom and on college campus who have influenced our educational values and who have strengthened our belief in the enduring significance of good schools. This book could neither have been written nor revised without the help of administrators and teachers who have helped us to understand how parents, children, and the faculty work together in school systems committed to democratic values.

H. G. S.
E. T. McS.

Evanston, Illinois
March 1, 1958

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PART I

Educational Values and the Elementary School

1

Why the Elementary Curriculum Needs Evaluation

MAN, we know, has been interested in the education of his children for at least as long as he has preserved his thinking in written form. Indeed, the long history of education is largely the story of how people in past eras have sought to make sure that their arts and skills and the things in which they believed would be accepted, preserved, and improved by their children. In other words, from earliest times, adults have appraised or *evaluated* educational programs in view of what they conceived to be "good" education.

In the United States, one of the most provocative questions today is "How shall we educate our children so that they will become the most effective citizens that we can make them?" Though not a new one, the question recently has acquired a new urgency. In a generation or two, the United States has become a great power in a world suddenly grown capable of destroying itself. As a result of this perilous pre-eminence and the hazards of superweapons, the future of our country as well as the way of life men choose to follow in every quarter of the globe depends in considerable measure on our maturity as a nation.

While education was always of importance, it has now become of immeasurable significance for the destiny that lies in the nation's future. The values our children acquire through the home, the church, the school, and other educative agencies today are helping to determine the kind of world these children will inherit in the year 2000. Because technology has given mankind an extended capacity either to live richly or literally to destroy itself, to enter a period of unparalleled material grandeur or to strip the world as lifeless as the moon, more than ever before education must seek to insure the greatest possible degree of wisdom and skill in rising generations.

How can this significant, and in some ways almost frightening, responsibility of education be met?

Basically, whether the earth spins on its way to a better day or to utter catastrophe will be determined by the values that educative agencies, including the school, can make a part of the thought and behavior patterns of our children. By A.D. 2000 these boys and girls, as adults, will have taken over our professions and will be running our factories, teaching our great-grandchildren, directing our government, shaping our relationships with other peoples in a world which, if present trends continue, will teem with at least twice as many people as the world of 1960—perhaps as many as 6 billion of them!

This is a book that deals with educational values; a book that with humility but with a strong sense of purpose seeks to stimulate the thinking of school workers as they appraise both the purposes they seek and the processes they use in building knowledge and skills, wisdom, attitudes, and values that will make the United States of A.D. 2000 a good place because today's children have become mature and effective citizens as they enter a new century.

Briefly, *Evaluation and the Elementary Curriculum* seeks to help all persons concerned with the education of the young to evaluate the objectives, opportunities, and tasks of the American elementary school.

■ Understanding the Need for Elementary Curriculum Evaluation

WHAT IS EVALUATION? If elementary education is to fulfill its important purpose of serving the children who will inherit our world of tomorrow, it needs continually to be evaluated. Before explaining why elementary education needs to be appraised, however, we must make clear what *evaluation* means.

Evaluation, in common educational usage, is a word with several meanings that vary with the circumstances and the insights of the persons using it. It may refer simply to a process by means of which a school faculty, often in cooperation with parents and other citizens, seeks to determine how the purposes and outcomes of an educational program can best be studied and improved. Again, *evaluation* may denote a testing program, or it may be used to refer to the procedures employed in judging competency in teaching. Often it is identified with a system of marks and report cards used to appraise or to "evaluate" the progress of pupils. Frequently, it is interpreted as a means of gauging the adequacy with which the educational program is serving the needs of children and the requirements of society.

As used in this book, *evaluation* refers to the process of determining the extent to which the elementary school is attaining the goals formulated and accepted by the faculty and parents. More specifically, evaluation is *a process of inquiry based upon cooperatively prepared criteria and concerned with the study, interpretation, and guidance of socially desirable changes in the developmental behavior of children.*[1] Stated in a third way, evaluation is a philosophical and scientific method used to determine what elementary schools can do in order more effectively to provide a curriculum founded on meaningful living and learning—living and learning that insures for each child maximum development through his day-to-day experiences and also prepares him through his *present* living for those duties ultimately inherent in democratic adult citizenship. In this interpretation, the progress of elementary education and the progress of a vigorous democracy are interdependent since each is, in part, significantly shaped by the other.

WHY DOES ELEMENTARY EDUCATION NEED EVALUATION? There are at least two major reasons why the elementary school needs continually to be evaluated.

First, continuous examination is needed to keep any social institution capable of vigorous service. To use an analogy, a seagoing vessel needs periodically to have the barnacles removed from its hull. If this is not done, the speed and, eventually, the seaworthiness of a ship is impaired. Likewise, elementary schools must be examined continually and scraped clean of the "barnacles" of outmoded teaching methods, unexamined and sometimes obsolete traditions, and subject content that has ceased to serve a useful purpose. Also, educational values require clarification through evaluation so that teachers and parents can choose from our stockpile of professional educational knowledge those elements and techniques that will most rapidly strengthen our educational programs.

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[1] See Chapter 3, pp. 56-61, for a more comprehensive definition and discussion of evaluation and the evaluative process.

The second major reason is that the children in our elementary schools live in a society of accelerated change and complexity. The world has changed more in the lifetimes of people now living than in all recorded history. This fabulous rate of change requires modifications in the curriculum and in methods of instruction so as to keep school programs up to date. *It also requires that the schools, to the best of their power, anticipate the demands and requirements with which a rapidly changing society and emerging cultures will confront children in school today as the adults of* A.D. *2000.*

Many men and women living in the United States today have spanned the 60 or 70 years during which society was catapulted from the twilight of the era of muscle power into the dawn of an atomic-electronic age, an age in which technology has become one of the greatest forces shaping life and writing history. Our senior citizens have witnessed the advent of such instruments of social change as electricity, the automobile, the movies, radio and TV, refrigeration, the airplane, and the freeing of the force of nuclear power. Furthermore, expanded research in the sciences—social, physical, and biological—will inevitably serve to sustain the exponential rate of change that is giving us a world remade by man. Indeed, the American climate of free enterprise itself appears to stimulate the research and experimentation that breed such changes. And astounding as they have been, recent developments in such fields as commerce and industry, medicine and cybernetics will be superseded by myriads of new discoveries of even greater scope and social consequence.

The barely begun lifespans of young teen-agers today serve admirably to illustrate the speed with which new inventions and scientific changes are affecting individual and community life. During the few years in which these young people have been growing toward maturity:

Human vision was extended to a billion light-years beyond the earth through a 200-inch reflecting telescope
The electronic microscope revealed the molecule
Radar signals reached the moon
New York to Los Angeles travel time via jet plane was cut to three hours
Man-made satellites were created to circle the earth
Great strides were made in conquering poliomyelitis
TV grew from an eye-straining novelty to a commonplace, and its pictures took on color

The atom began to work constructively for mankind as a source of controlled power.

In their brief years of experience, these children came to accept such great technological strides as ordinary. Even the impossible, it seems, is something that will, come tomorrow or the day after, be a reality and as prosaic as yesterday's newspaper.

Three decades ago, Walter Lippmann pointed out that one of the greatest creations since the development of the wheel was man's success in contriving a system of inventing inventions—the scientific method of problem-solving through study and experimentation.[2] Now, through pure and applied science, man deliberately sets out to *create* change. If we are to live successfully with such a power, clearly all our social institutions including the elementary school must be reappraised.

Change based upon an intelligent approach to problem solving has not, of course, been limited to technological progress alone. It is fortunate that this is so, since most of the real issues and problems in the world of today and tomorrow are psychological and cultural. As a result it is important that our social inventiveness at least keep abreast of technological advances if man is to escape the potentially destructive use of the power sources he has learned to exploit.

Like mechanical instruments, societies and the cultures they develop are the handiwork of men and women. Society's greatest unconquered frontier at the present time is the frontier of cultural change that will bring improvements in human relations. In the last half of the twentieth century one of our greatest challenges is how to create better ways of living with one another. Improved transportation and communication have reduced the distances existing among people of the world, but the slow progress in means of psycho-cultural understanding has increased international friction in recent decades and helped to precipitate two of the world's bloodiest wars.

Elementary education, along with all other levels of education, needs evaluation so that in the future the world's peoples can lessen the unfortunate consequences of the poor quality of human relations practiced by adults in the past. While it is true that progress has been made toward better social understanding, it has not been made at the same rapidly accelerating rate that has characterized technological change. As a result, people everywhere are struggling to escape what Toynbee, the social historian, has called "our time of troubles."

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[2] Walter Lippmann, *A Preface to Morals* (New York: The Macmillan Co., 1929).

WHERE DO WE GO FROM HERE? As we look at the reasons which suggest that our schools need evaluation—both to bring and to *keep* them up to date and to anticipate emerging citizenship requirements in the future—a question inevitably arises: "How shall we go about it?"

In order to build a foundation for successful appraisal of the elementary curriculum, let us examine and understand the progress and achievements in elementary education that have greatly altered teaching methods and materials in the past six decades. In addition, we need to study the trends in society that are shaping the sociocultural milieu of our children.

In fine, the writers believe that elementary education can be so designed that it creates wholesome changes in the psychological behavior of children, and that socially desirable goals are more fully realized through these children as they learn to live more intelligently and more democratically as adults. But along with their opportunity and privilege to examine what the future American society will expect of democratic citizens, teachers and parents must accept the responsibility for studying society to determine the forces and the developments that suggest the curriculum practices and administrative organization our elementary schools must adopt in the future to help boys and girls to mature into socially and economically literate adults. Only thus can we find sound answers to the question, "Where do we go from here?"

The remainder of Chapter 1 is designed to help the student of elementary education make a start at developing his ability to see the place of the elementary school in modern society by looking, in retrospect, at 60 years of educational change. In addition to this brief review, a sampling is made of some of the portentous social trends with which persons seeking to improve elementary education must reckon when striving to make education a means to the mental and moral power needed to advance the quality and benefits of democracy among a free people.[3]

■ In Retrospect: Progress in Elementary Education since 1900 That Reflects Educational Values to Be Retained in the Curriculum

A few years ago, Frederick L. Allen produced a wonderfully readable book, *The Big Change,* in which he reviewed the impact of social trends upon America since 1900. At the century's turn there were 13,824 automobiles in contrast to some 60 million today. Skirts swept the streets, at ankle length; Andrew Carnegie earned a tax-free income of $23 million (equivalent to at least $50 million in purchasing power in 1958); Los Angeles was a bustling town of 100,000; and a 12-story building was a thing of wonder. During the intervening 60 years an almost incredible burst of human energy linked with technological skill transformed the face of America.

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[3] The annotated list of readings presented at the end of Chapter 1 has been selected to help the serious student extend his knowledge of the social setting in which the elementary school functions.

Also, during the same six decades, the elementary classroom has altered almost beyond recognition. War, depression, prosperity, fear, and optimism combined their influences to leave an imprint upon curriculum, school plant, and materials of instruction. In interaction with the culture, the status of teacher and pupil personnel have also been modified greatly. Since the classroom and the culture influence one another, let us attempt to look at them together to obtain a perspective for evaluating present-day practices.

A NEW EDUCATIONAL WORLD IN BIRTH: 1900-1920. In 1900, a new educational world of the classroom was being born. John Dewey, with *My Pedagogic Creed* newly written, was (at 40) about to enter his prime as a force in education. *Schools for Tomorrow, Democracy and Education, How We Think,* and other contributions that were greatly to influence elementary education were germinating within him. Colonel Francis W. Parker was opening the school in Chicago that bears his name and that for years pioneered in creating fresh approaches to teaching and learning.

The first two decades of the twentieth century saw many ideas and innovations that, in retrospect, need to be studied to determine whether they have a permanent place in elementary education or whether they should be modified or discarded. Early in the century, the first Binêt-Simon tests appeared. Soon thereafter E. L. Thorndike devised a handwriting scale and Leonard P. Ayres published his spelling scale. Overseas, Max Wertheimer, Kurt Koffka, and Wolfgang Kohler were developing the early concepts of Gestalt psychology that shortly were to strike deeply into the educational thought of the United States, as were the writings of their contemporary, Sigmund Freud.

At home, in the 1900-1920 era, J. B. Watson explored behaviorism, and in 1918, William H. Kilpatrick's book *The Project Method* appeared to herald more effective ways of working with elementary school children. By 1904, J. L. Meriam was creating a forerunner of the correlated program in the University of Missouri campus school. W. A. Wirt, first at Bluffton, Indiana, later at Gary, devised the platoon plan of school organization. The single decade, 1909-1919, saw the first White House Conference, the first modern school surveys, and the "new type" of educational thinking reflected in the famous Seven Cardinal Principles of Education advanced by the National Education Association's commission on the Reorganization of Secondary Education in a report that influenced teaching at all grade levels. During the same years, Ellsworth Colling's experimentation with the project curriculum occurred. The Lincoln School at Teachers College, Columbia University, opened its doors, while Carleton W. Washburne and Helen Parkhurst fired educational imaginations with plans for individualized instruction at Winnetka, Illinois, and Dalton, Massachusetts, respectively.

TWO DECADES OF CHANGE IN THE CLASSROOM. And what happened in actual classroom practice from 1900 to 1920? First, there was recognition of the need for new ways of meeting the demands of mass education as new millions of children poured into the schools. Classroom practices at the elementary level began to change as it was realized that many children were going on to high school and hence need not be "exposed to all the formal learning in the books" by the end of eighth grade. Second, school workers began at least dimly to sense that there was a need for the elementary curriculum to help children make many kinds of adjustments to life and to compensate for learning and work experiences that the home no longer supplied. Third, some initial efforts were made to study children and to treat them as individual human beings. Finally, the exploration of ways of applying new theories of learning was begun.[4]

THE ROARING '20's. As the century entered its later adolescence in the 1920's, a large segment of the population of the United States appeared to do likewise. It was the Era of Wonderful Nonsense. As women's hemlines rose, the emotional maturity of many American adults seemed to sag. International responsibility was eschewed as the United States declined to join in the infant League of Nations. Prosperity without precedent was enjoyed—portions of the farm population excepted—and joy was not only unconfined but sometimes decidedly unrefined.

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[4] A suitably detailed historical review of the era may be found in Frederick Eby, *The Development of Modern Education*, 2d ed. (New York: Prentice-Hall, Inc., 1952), pp. 627-697.

When there was nothing better to roar about, the 1920's roared about trivia: the Hall-Mills murder trial and Floyd Collins trapped and dying in his lonely Kentucky cave. In a somewhat more important vein, the country watched the Scopes Trial, at which Bryan and Darrow jousted over the question of whether evolution could be taught in Tennessee, and waited in awe to learn whether or not the technological marvel of the "Spirit of Saint Louis" would carry Lindbergh from our shores to Le Bourget airport at Paris.

Insofar as classroom practices were concerned, education, too, entered a lively era. The Progressive Education Association, founded in 1919, stepped onto the scene to compete with the scientific movement in education, which, many teachers and professors interpreted as a means of reducing, if not eliminating, most educational ills by applying the method of scientific inquiry. Although some readers may, with reason, deem it a grievous oversimplification, changes in classroom practice in the 1920's may conveniently be viewed as influenced most significantly by the twin impact of the Testing Movement and the New Education.

The Testing Movement and classroom teaching. There were able educational leaders in the 1920's who recognized that elementary school programs had often been rather haphazard and inconsistent. School organization and instruction, they reasoned, could be improved by applying the scientific method of problem-solving, pioneered in the nineteenth century and ripening in the twentieth, to the rational solution of educational problems. As a result of their influence, classroom practices in various grade schools were modified in such ways as the following:

Children were given I.Q. tests and grouped according to their purported ability (or their assumed potential ability) in order to facilitate instruction. It was felt that this procedure increased the likelihood of challenging gifted children in "superior" groups and of giving added practice to slow learners.

Experiments were designed to determine at what grade level children best could master a given process or body of subject matter, as in arithmetic.

Standardized achievement tests were more widely used to gauge the quality and extent of instruction, say, in spelling or geography.

Textbooks were made more "scientific" through the use of word lists, based upon children's usage, in spellers, for example, and through the introduction of controlled vocabulary formulas in readers.

Through surveys and experimentation, efforts were made to allocate content more intelligently and to ascertain what minimum essentials were to be acquired before a child was promoted.

"Improved" records and reports were introduced. More complete records were kept.

"Scientific" courses of study multiplied across the country.

Considerable attention was given to the implications of behaviorism and the role of the S ⟶ R bond in learning.

The "New Education" in the classroom. Coincident with the Testing Movement and the influence of behaviorism, the "New Education" began to exercise a marked influence on elementary schools. Often referred to as the "progressive education movement," the New Education had two basic, emerging dimensions. One was concerned with the function of education as a means of improving society and strengthening American democracy. The other was an attitude toward children that involved "creative" or "original" classroom practices tailored to an organic conception of children and youth. In short, the New Education sought to respect the uniqueness and dignity of the personality of the young, to recognize their varied needs and purposes, to act upon the premise that learning occurred in many ways, and to create a warm, humane classroom. Such an environment was one in which:

Teachers and children planned and directed their experiences cooperatively.

Children were guided toward understanding and improving their social environment.

Children had freedom to plan, execute, and evaluate ideas, to direct their activities, and to organize subject matter as it served needs and purposes consistent with their development.

The curriculum was not a rigid, adult-imposed course of study but experiences guided by the teacher as he studied a group in their environment, took the children where and as they were, and assisted them on the long road to maturity and self-realization.

The "psychological environment" of the classroom motivated children to sense problems, develop purposes, and to seek answers that were meaningful to them.

Drill was held to be subordinate to the development of meanings, the necessary practice or drill coming after children understood and accepted it as necessary.

As the 1920's moved toward their crashing close, an unfortunate and needless grouping of certain members of the teaching profession occurred. "Progressives," on the one hand, clustered around the banner of the New Education, while, on the other hand, certain so-called "essentialists" carried the guidon of the Testing Movement. Owing to semantic problems, perhaps partly for the sheer joy of the fray, and partly due to real (but not at all irreconcilable!) differences, this disagreement over practices ripped the 1920's, enlivened the 1930's, and lingered through the 1940's.

Expressed very simply, some progressives urged that the schools teach children rather than subjects; some essentialists stoutly maintained that education's major concern was transmission of content—of the cultural heritage.

Since both groups were sincerely concerned with the goal of serving the education and welfare of children, it was unfortunate and "Strange all this difference should be 'Twixt Tweedledum and Tweedledee." The passing years were to heal this professional schism appreciably and to leave few scars.

The directions of change. In summary, some practices in the classroom that began to emerge and find a measure of acceptance by a few pioneering teachers in the 1920's were:[5]

The development of the first curriculums that attempted to face tomorrow rather than yesterday

Presentation of good modern writing rather than the classics *per se*

A shift from formal compositions to the sharing of vivid personal experiences

Less stress upon history as a sequence of past events, and more stress upon the progress of nations and races in the light of present-day developments; study of one's own community

Less technical grammar, especially in the early years of school

Sex hygiene and education for parenthood

Emphasis on insights and meanings rather than on fixed habits and skills, subject matter being recognized as a means of changing behavior

Correlation or fusion of one-time separate subject areas

An increase in science work in the grades

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[5] Adapted and abridged from trends abstracted by Roseamonde Porter from yearbooks and publications of this era. See Laura Zirbes, *Curriculum Trends* (Washington, D. C.: The Association for Childhood Education, 1936), pp. 21-24.

Science conceived less as a body of organized "facts" and more as a way of thinking and acting intelligently.

THE THREADBARE '30'S. The radio and TV wit Groucho Marx aptly named the next decade the "Threadbare '30's." To paraphrase George Bernard Shaw, "A generation with the chill of poverty in its bones is never quite warm again," and, in the United States, millions of insecure human beings learned this during the Great Depression.

The chill of poverty. Although they were grimmer, the social and political developments of the 1930's were as fascinating and probably far more significant than in the 1920's. At home, new concepts of the role and responsibility of government were taking form, and education was embroiled in the controversy. Abroad, although unrecognized by many, a frightening future was taking shape in Manchuria in 1931, in Hitler's investiture as Germany's Reichschancellor in 1933, in the debris of Ethiopia's flaming huts, in embattled Spain's Alcazar at Toledo, and in Madrid's ruined University City.

A pre-eminently significant and reassuring quality of the times lay in the fundamental strength that the United States revealed. While revolution and violent change were the rule in many places the world over, the United States erupted with ideas for better ways of life: reforms and regulations flowed through the land, some from the hands of hot-eyed zealots, others from fighting conservatives. Real gains took some of the chill from the Bonus March and farmers' riots at bankruptcy sales. Even their most outspoken opponents conceded that the CCC, NYA, AAA, and other agencies gave help and hope to millions. The country moved into high gear with what the economist John Maynard Keynes called ". . . reasoned experiment within the framework of the existing social system."

Reverberations in education. A variety of forces and factors molded classroom practices during the years of the Great Depression. Many teachers and other citizens felt the need for the schools to build attitudes of greater social and economic responsibility. George Counts' small volume, *Dare the Schools Build a New Social Order?*, provoked wide comment in the early 1930's, and many readers were sympathetic toward social-action programs carried forward by the schools. "Socially useful work" by children was encouraged in the interests of community improvement and documented in Paul Hanna's descriptive book, *Youth Serves the Community* (1936). *The Educational Frontier*, edited by William H. Kilpatrick, and the Third Yearbook of the John Dewey Society, *Democracy and the Curriculum,* voiced liberal thought of the mid-1930's, while the Sloan Foundation and similar agencies financed projects for reclaiming human beings through dynamic educational programs designed to meet local lacks and needs.

Both in elementary and secondary education there was much examining of the curriculum and debate as to how the needs of childhood and youth could better be served. One result was the influential NEA book, *The Purposes of Education in American Democracy,* which is still widely quoted. Another result was the Eight-Year Study of the Progressive Education Association, which affirmed that the secondary school could provide a sound, flexible education that met youths' present and future life needs.[6]

The Eight-Year Study also reflected the trend toward evaluation, a process of inquiry that moved beyond mere testing to appraise the quality of school living. Pioneered by such persons as J. Wayne Wrightstone, Ralph Tyler, and Louis Raths, the new approach to appraisal sought to help teachers gauge some of the important "intangibles" of teaching and learning.

Stress on human development research. Child and human development research also left its imprint on the decade. Arnold Gesell's clinic at Yale contributed to professional knowledge of children's developmental behavior, and Willard Olson's concept of organismic age helped focus attention on the many elements involved in growth and development. Daniel Prescott's *Emotion and the Educative Process* and James Plant's *Personality and the Culture Pattern* served as important documents giving heed to the need to consider the total child in his total environment when seeking to guide his progress toward maturity in the classroom.

The implications of research in "related disciplines," fields with a bearing on education, also began to make themselves felt during the lean years. Among the fields in which interest was awakened were sociology, anthropology, psychiatry, pediatrics, mental hygiene, semantics, biology, sociometry, and psychology. Especially in the experimentally inclined school districts, there were long and excited discussions of the writings of Margaret Mead, Ruth Benedict, Alfred Korzybski, Alfred Adler and Carl Jung, George Coghill, the Lynds (Robert and Helen), and Karl Menninger.

As the 1930's dissolved in the tragic early months of World War

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[6] Wilford Aiken, *The Story of the Eight-Year Study* (New York: Harper & Bros., 1942).

II, a period of ferment in education also drew to an end. In the decade that had now ended, classroom methods had been improved to a marked degree. Manuscript writing, the experience approach in reading, emphasis on functional rather than rote learning, the needs concept, correlation, and swarms of analogous innovations had left the blueprint stage and become realities. The school was considered to be a more active force in social change, too, only the form and extent of the school's role being open to debate.

THE FRIGHTFUL '40's. World War II was the harsh reality that governed most of the human activity in the United States for the first half of the next decade, and it inexorably involved the program and practices of the schools. Direct projects to strengthen the war effort were one immediate result as the schools produced model planes for the aircraft recognition program and developed "Commando Courses" to strengthen high school youth physically, while scrap collections left piles of old metal heaped high in schoolyards. Ways of building understanding and loyalty for the "American Way of Life" were discussed and programs adjusted accordingly. Children learned to file to school basements in air defense drills.

Wartime problems. Soon notes of alarm crept into the headlines. Rumors spread that recruits in the military forces were poorly educated. Such statements were hotly denied without completely allaying public uneasiness over purportedly ineffectual "progressive" teaching. Liberal educators whose social views had been aired without reproach in the 1930's now sometimes ran the risk of being splattered with labels of "disloyalty" if they viewed social or economic omens with concern. Many liberal voices either hushed to a whisper, ceased their criticisms, or changed in tone. Rationing, military service, added duties, and similar factors reduced professional activities by absorbing time and manpower. Educational improvements and innovations were not forgotten, but much human effort in the school was redirected.

New directions. But something thrilling and good seemed to have been distilled from 15 years of depression and world conflict. These years had encouraged maturity, had let the heat die out in some controversies over methods of instruction, and had created a quiet sense of purpose and dedication—within teachers and general citizens alike—in creating better educational opportunities.

The late 1940's saw the child-development approach widely accepted, albeit not always deeply understood. Group processes were recognized as a promising means of realizing the potentialities in democratic, cooperative action. Concepts reflected in such terms as *permissive atmosphere, life-adjustment education, developmental tasks,* and *persistent life situations* found their way into professional jargon, but with many and varied interpretations. A new cooperative flavor entered school–in community relationships, curriculum development, and faculty interaction. The concept of guidance found itself broadened from a service for children with problems to a way of working with all children in the classroom–community environment. International and intercultural education no longer were subjects of mere conversation, but became the objects of study and action.

Since the 1940's, the artificial and needless split between the progressives and the essentialists has been gradually and intelligently resolved. Instead of saying that "One must teach children, not subject!" or the reverse, both were recognized as essential to the teaching-learning process. Subject matter was seen as what it had been all along —an indispensable means to reaching the end goal of helping the young to become mature, contributive adults.

Also, as Gertrude Hildreth[7] was to note later, so-called conflicting theories of learning began to be recognized as *complementary.* Connectionism and the conditioned response, Gestalt principles and field theories were seen as having each in a measure helped to explain aspects of the learning process and to have contributed to an emerging, dynamic interpretation of education.

FRUITION IN THE '50's. The 1950's are still so close to us that this decade is difficult to assess in proper perspective. Yet there is reason to feel that these years may be considered as the threshold of fruition in elementary education if our maturity as a nation is sufficient to keep us clear of the international chaos that would be triggered by another Great Depression or by World War III.

Classroom practice in the 1950's began to be built around a hard core of tested methods that were an amalgam of many of the durable and worthy features of both the Scientific Movement and the New Education, as previously suggested. At the same time, a renaissance of interest in research, including evaluative and active research, suggested a lack of complacency. Also in the 1950's, some of the bitterest criticisms of the schools to develop in the United States since Horace

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[7] Gertrude Hildreth, "Dynamics of Learning in Childhood Education," *The American Elementary School* (New York: Harper & Bros., 1953), p. 45.

Mann's day helped educators to re-examine what they believed in and what they were doing. This left the teaching profession stronger as it reaffirmed the fundamental soundness of our elementary school programs.

Crowding and lack of funds, as elementary enrollments pushed upward toward the 30-million mark, conspired to hamper rapid progress, but the gains of the 50 years that had passed had created in the schools a resilience and an ability to cope with and to offset such pressures and problems and, at the same time, to preserve and extend good teaching.

What shall we preserve for the future? In the retrospect of more than 50 crowded years of twentieth-century living, those who would evaluate and improve elementary education should find many things upon which to deliberate. And there are many educational gains that probably should be retained as we study social trends that may well suggest educational designs for the future. As Hollis Caswell[8] suggested in the mid-1950's, among our enduring educational values to be preserved are: respect for the personality of the child; recognition for the fact that education is an active, purposeful process; the concept that the good program is concerned with the all-around development of children; and a grasp of the psychological principle of intrinsic motivation.

▪ In Prospect: Social Trends That Challenge the Evaluator

What are some of the portentous social developments and trends that seem destined to influence and perhaps to govern many aspects of our lives as the century wanes? Why is it not only desirable but imperative for those who would evaluate and redesign the elementary curriculum to be conversant with these trends? Basically, it is through the study of socio-cultural trends and conditions and their implications that we can begin to anticipate those developments which forecast modifications of educational programs that will enable children to function in tomorrow's society. Here is a brief sampling and interpretation of some trends that seem to be of peculiar importance or interest.

SOME PORTENTS OF TECHNOLOGICAL CHANGE. Because man's technological capacities have improved more rapidly than his skill in human engineering, the great industrial powers of the world are like giants, with great power for good or for harm, who have the minds of children. This suggests the need for careful study of the curriculum in the effort to determine what can be done to lessen the chasm between technological know-how and social immaturity.

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[8] In an address at the Tenth Annual Luncheon of the Association for Supervision and Curriculum Development, Chicago, Illinois, March 10, 1955.

Technology as a threat to individuality. An important and subtle quality in a highly technological society, a quality which bears on curriculum planning, is the threat to human individuality. This threat lies in the psychological effect of complex machines and a complex social structure upon children as they mature. Because of its subtlety, this problem requires depth of insight from curriculum planners.

Several generations ago, the child was in a position to sense and understand cause-and-effect relationships with some clarity, insofar as mechanisms and tools in his environment were concerned. Consider the matter of illumination in his home. The candles or coal-oil lamps that provided light were easy for the child to understand in an empirical sense. Perhaps he had even helped to dip or to mold the former. If one or the other burned out, he could grasp the reason, since the evidence was before his eyes in a puddle of wax or an empty coal-oil reservoir. Probably, at an early age he knew how to renew the source of illumination. But what is the situation today?

In the home, the act of flipping a switch or pressing a button floods a room with far better and far less understandable light. The young child has little or no broad comprehension of the scientific achievements and complicated human organization that make possible a modern lighting system. If something goes awry, aside from screwing in a new fuse or electric bulb, the child (and probably his parent as well) is helpless to remedy the situation. One outcome is that a child may now come of age with a dawning awareness of the fact that he is no longer captain of his fate in a world of applied science, an age of experts: of men who read meters, who can handle high-tension wires with impunity because of their special knowledge, and who can repair electrical equipment with which mother and father dare not try to cope. Atomic power in the future may well be even more impersonal and difficult to understand.

Subtly, the "age of experts" is eroding the child's feeling that individual human beings are important and should be masters of their "private" worlds. The environment seems to say, "Call in the expert. You are impotent and helpless in solving problems." This devastating psychological attitude of resignation implanted by applied science is a challenge for the elementary school. Through its program, experiences should be provided which show that man has more importance and dignity than his iron and steel creations; that the experts are not supermen; and that ordinary human beings are important agents working in teams to keep a mechanized culture, devised by men for men, in operation. Also, it should be made clear that the new age of science has freed men from many menial tasks, thus increasing opportunities for greater self-realization.

Generally speaking, modern social organization has a similar overwhelming impact on the child, which is the more important because its influence is likely to be overlooked by adults who are frequently too bemused themselves in the elaborate structure of the environment they have built to think of their children's psychological needs. Indeed, the task of comprehending the social setting of which the child is a part is probably more difficult than developing insight into its science aspects. The relationship of the individual to his local socio-cultural pattern almost certainly was more understandable and less multivalued a generation or two ago. Some problems did not exist, for practical purposes, because they were not recognized, and the frontier beckoned to anyone who sought refuge from difficulties that seemed to threaten his personal well-being. Now all this has been altered.

The national and international scenes are complicated by issues that mature with great speed, thanks to improved communications. Truth, always difficult to pin down, is even more elusive in an age that tolerates the lie as justifiable in politics and in many instances that accepts the misleading half-truth in advertising. Is it surprising, then, that such a social matrix suggests that elementary education needs evaluation to determine how it can better help children learn to cope properly with the social realities in community life?

Changing occupational patterns, automation, and population trends. In addition to its psychological impact, technological change promises to alter the future occupational patterns to which children now in our elementary schools must adjust. For example, over 50 percent of our foodstuffs in the United States are now produced by but 10 percent of our farms—huge, food-producing complexes that are managed like factories. As a consequence, opportunities for individual, small-farm ownership are declining. Also, *in proportion to the population,* the opportunities for one-man ownership of a business, for top executive positions, and for service in a profession actually have grown less since 1900.[9] New fields of employment in an atomic-electronic age have, of course, opened many new occupations.

As a by-product of changing occupational patterns, loyalties to old jobs have been strained, and the common relationships of employers and employees sometimes have become less personal, even impersonal. The new-type manager is rarely the owner of a business; he is a salaried man with a new set of attitudes toward the factory, corporation, or utility he serves.

Perhaps of greatest significance are the implications of automation, which, in somewhat oversimplified form, may be defined as the use of machines to run machines, and the concomitant challenge to the schools. In what ways does automation, and the new modes of life it opens, require that the curriculum be modified?

Also associated with the pattern of occupational changes is the unpredictable outcome of the new labor shortage. The United States is trending toward a population of over 190 million in the 1960's and perhaps 220 million by 1975. During these years of growth, in the late 1960's and early 1970's, while the population here increases by over 30 million souls, the 25 to 45 age group (the heart of our labor supply) will actually shrink by some 2 million! The above-65 group will add 6 million to its ranks, and the under-20 group will expand by 16 million.

And what does all this have to do with appraisal and redirection of the *elementary* school curriculum? How do employment trends, labor-management relations, automation, and the surge in population bear on what the schools teach? For one thing, we probably need to examine the practice of attaching so large a measure of prestige to managerial-ownership-professional goals in our conversations with children and stress the significance and dignity of *all* types of work, whether it be with mind or hand. It may well be that we need to recognize that automation will demand that the schools prepare children for the higher level of skill that those who build, service, and operate complex mechanisms will need to have. We need, too, to sense that lines once sharply drawn between white-collar and blue-collar jobs are likely to vanish. Indeed, the white collar-technican group may soon become the largest single part of the labor force. And, insofar as prevocational and vocational programs are concerned, we need to make sure that automation (as it eliminates old jobs and creates new ones) does not catch our schools preparing children for types of employment that no longer exist. At the same time, we must be sure that we do not overrate the possibilities in automation!

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[9] See David L. Cohn, "Who Will Do the Dirty Work?" *The Atlantic Monthly,* 183:45-48 (May, 1949).

With respect to automation, we must bear in mind the retort of a young jet pilot when told that in a few years robot pilots would replace human ones. "Humph!" said the pilot, "I'd just like to see the scientists come up with a robot that weighs just 150 pounds, has five senses, is completely self-contained, self-powered, self-lubricated—and is as easily produced by inexperienced labor as I was!" Important as automation may prove to be, we should keep our respect for the human being.

For the next 10 to 20 years, the dwindling supply of available labor (in proportion to the population) also demands that ways of utilizing our human resources more efficiently be found. At the same time, it is vital that we recognize that pressure for a 30-hour week may be around the corner, and that by 1980 or 1990 it will bring with it a great need for wiser use of the new leisure which automation can bring.

THE CHANGING STATUS OF THE FAMILY. In a more simple culture existing prior to 1900, family life was a source of much real education. Mothers and daughters, fathers and sons worked together at the functional tasks that characterized small-town and agrarian living. Both duties and ways of looking at life were absorbed by children as they contributed, together with their parents, to the family livelihood. On the whole, this was a highly desirable educational situation. Each child had chores of one sort or another that, however distasteful they may have seemed at the moment, gave him status and a feeling of personal worth. By the same token, parents welcomed children—and promptly put them to work when they were old enough to carry small logs to the kitchen woodbox. During the same era, the elementary school was a supplement to the functional education of the home. Learning the three R's was a short-lived experience and often endurable only because of its brevity. An eighth-grade education was the exception rather than the rule, and thousands of children grew up with no education other than the real-life experiences of contributing to the process of keeping flour and bacon in the family larder, a watertight roof overhead, and homespun or calico on the family backs.

Since 1900, the status of the family has changed drastically, owing to applied science. The average family today is urban; children and parents rarely work together as of old. In addition, children are in school nine or ten months of the year and for five or six hours per day. Father's work keeps him away from home during the day and is usually remote and difficult for young children to understand. Mother, like as not, may have a part-time or even a full-time job or be involved in worthy causes or social activities. And children themselves may have little in the way of tasks that give them a feeling of contributing to the general family welfare.

These changes are distinct challenges to an elementary school that finds itself shifted from the simple responsibility of supplementing living to a new role as one of the basic elements in the child's whole educational experience. Since adaptations and changes in human institutions are slow, it is not surprising that many elementary school programs have failed to make a graceful and successful transition to the new role thrust upon them. As a result, there is much confusion regarding the ways in which the classroom can serve children who have become more dependent upon the school as a place to find socially useful work and to discover and develop participating membership in group activities. Some elementary schools may have tried to do too much, others too little, in the way of assuming added responsibilities to meet changing conditions. One of the purposes of this volume is to appraise the *major* role of the school.

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VANISHING FRONTIERS AND NEW FRONTIERS IN AMERICAN LIFE. A few years ago Walter P. Webb, the University of Texas historian, pointed to a basic but scarcely noticed fact that already was influencing the American scene and changing the fabric of society in the United States.[10] Between 1500 and 1900, Webb noted, Western Europe and the United States were the beneficiaries of a 400-year boom. An unexploited world lay at the feet of explorer, fur trapper, miner, colonist, and adventurer. A mere 60 million Europeans, in 1500, suddenly found opened for them what for four centuries was to be almost unlimited living space and opportunities for material self-improvement.

By 1900, the fruits of a world, once ripe for the plucking, largely were gone. The great powers had divided the earth and free land and seemingly unlimited resources no longer awaited the venturesome.

The "Great Boom" had ended. But the minds of men did not

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[10] See Walter P. Webb, "Ended: Four Hundred Year Boom," *Harper's Magazine*, 203:25-33 (October, 1951).

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quickly comprehend the meaning of vanished frontiers. Nor, as a general rule, have Americans yet come to understand fully that, with our physical frontiers gone, we must to some extent change our thinking.

The frontier and American character. For some 200 years, open land to the West drew the world's hungry and homeless. Life on the frontier created a unique breed of citizen—crude in some ways but also hospitable, a breed that was self-reliant yet aware of the importance of cooperation in facing uncompromising nature and in creating the communities that were eventually welded into a great nation.

The elementary school today faces the challenge of finding ways of compensating for the diminution of the forces of the frontier that toughened moral and physical fiber. Education today likewise faces the task of changing the thinking of our young citizens from now on, so that the character of our attitudes toward natural resources is changed. After centuries of finding ways to develop and to exploit our forests, fields, minerals, waters, and wild life, the problem now is to make Americans mindful of ways of husbanding them.

Exploring new frontiers. Perhaps the biggest job of all, now that our physical lands are filled, is exploring with children important, new, and tangible frontiers in human relations. Until recent years, people in America were under no compulsion to live together in complete amity. The landless, the restless, and the adventuresome could move through the Delaware Watergap. The seekers of religious freedom could find unpopulated Utahs. Individualists of every sort could settle in wide areas where their individuality could find expression. There was plenty of room for the Old World's friendless and weary and available work of every kind, especially manual labor, in over 3 million square miles of territory. While it is true that Americans did not invariably get along in complete harmony with one another during the nineteenth century, in human relations solutions of a sort were to be found—as, for example, the Mormons found them—in the geographical size of the United States.

Both population growth and applied science have contrived to change the nature and intensity of the need for better human relations. Science laced the nations together in a mechanical sense, gave mobility to the millions, and yet supplied no means of lessening the frictions generated when peoples with diverse values and culture patterns meet and live in close proximity. Once a remote dream, human brotherhood has become a necessity demanding the attention of school, church, and every educational agency in bringing it to living reality.

Progress toward improved human relationships has been made through the combined efforts of such agencies. Radio programs and comic strips parodying human differences are vanishing. The attitudes mirrored by the pulpit and most of the press are gratifying. However, the hearts and minds of men change more slowly than the exigencies of the situation demand, and the elementary school must contribute more to the progress.

CHANGING INTERPRETATIONS OF DEMOCRACY. Yet another factor in social change, one which is of subtlety and importance, is the changing interpretation of the meaning of the abstract noun *democracy*. Although not so interpreted by the Founding Fathers of the nation, a century ago democracy was simply conceived by many citizens as mere equality at the ballot box. Social and economic democracy were highly theoretical concepts. By and large, "the *least* government was the *best* government."

Today *democracy* has come to stand for a way of associated living—the most highly developed form of human relationships that man has conceived and attempted to practice. It is a concept that recognizes the worth and dignity of human beings and guarantees them the opportunity of freely and fully developing their individual capacities as long as such self-realization is consistent with the general welfare.

Yet there are those who view with alarm what they identify as some of the emerging characteristics and interpretations of democracy. Lippmann, for instance, has expressed his concern over "the alarming failure of the Western liberal democracies to cope with the realities of this century."[11] He notes that "The people have imposed a veto upon the judgments of informed and responsible officials" and that "Mass opinion has acquired mounting power" and ". . . has shown itself to be a dangerous master of decisions when the stakes are life and death."[12] In short, Lippmann is concerned about the enfeeblement of executive leadership that is so cowed by the public democratic power as to prefer to be wrong rather than to be right at the "wrong"—that is, unpopular—time.

In a similar vein, the nimble-minded sociologist Riesman[13] has commented that we are becoming "other-directed," that our chiefs have lost their power in these later years, but that the tribe has not been strengthened and many citizens today are apathetic. Like Lippmann, he sees danger to democracy in a situation in which the individual seeks to be guided by what he thinks others want rather than guiding himself by his own examined values.

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[11] Walter Lippmann, *The Public Philosophy* (New York: New American Library, 1956 edition), p. 11.

[12] *Ibid.*, p. 24.

[13] See David Riesman, *The Lonely Crowd* (New York: Doubleday & Co., 1955).

Without question, those who seek to appraise and improve our elementary schools need to do more than merely affirm their belief and faith in an abstract "democracy." Both teachers and parents need also to be concerned with the specific interpretation of democracy that we hope will be developed within our children.

POWER STRUCTURES IN AMERICA AND THEIR BEARING ON EDUCATION. One more example of developments in American society will round out this sampling of broad considerations chosen to illustrate how an evaluation of our elementary school programs is dependent upon a grasp of the culture in which we live. Let us consider the provocative question of power structures in the United States—the question of who controls America.

C. Wright Mills[14] contends that we have a control structure which includes top corporate executives, a political directorate (largely appointed), influential soldier-statesmen, the very rich, celebrities, and others of lesser stature who comprise our opinion molders, policy planners, and decision makers. Whether or not one accepts, modifies, or rejects Mills's colorful views, it seems plain that persons participating in or sharing in the planning of educational experiences of tomorrow's adult citizens are faced with a number of broad questions.

How local school workers shall seek to plan the nature and "flavor" of classroom living and the subject content of the elementary school is dependent upon the conclusions they reach with respect to such questions as these:

If a "power structure" or "power élite" *does* exist, shall public education try to serve as an escalator to raise gifted children to control positions and train the less able to be good followers?

Are mass media, such as TV, complicating social action because they keep the individual from "answering back" to a power élite that controls what he hears and sees? Are special "power pressure groups" interposing themselves between the citizens in our mass democracy and corporate, labor, military, and governmental decisions? If so, what can and should the schools attempt to do about it?

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[14] See C. Wright Mills, *The Power Élite* (New York: Oxford University Press, 1956).

Does the corporate, military, labor, or governmental leader increasingly find himself identified with a control-élite and dissociated from the mass of stockholders or voters who have chosen him—directly or indirectly—as their representative? If "yes," what are the implications for education?

Many basic values are taking form at the elementary school level. These values, expressed as attitudes, will determine how the children of today will think and behave tomorrow. The teacher of grade 1, the principal in his interaction with a committee of fifth-grade children, the arithmetic teacher in a departmentalized grade 7—all are shaping the values and increasing or impairing boys' and girls' ability to think clearly and creatively. Their success can greatly increase the likelihood that our nation will retain a sound, democratic power structure. How important it is, then, that the total experiences of these children—their social and intellectual growth—be weighed, planned, and guided with unremitting care.

CHILDREN AND THE FUTURE. The years ahead certainly will confront us with new socio-cultural and political issues.[15] We probably are approaching a severe water shortage in many areas of the United States. Increasing power needs, badly crowded highways, and housing pose many interlinked problems. Government spending, inflation, the depletion of important national resources, the competition for foreign markets, and the need to redraw our municipal maps as population shifts complicate the operation of local and state governmental units are but a handful of the major challenges that will confront children as they live in the future.

An education that will help our young people not merely to survive but to thrive is worthy of adults' best efforts *now*.

■ The Developmental Requirements of Children and the Emerging Directions of a Dynamic, Democratic Society as Considerations in Evaluation

If he takes a broad view of elementary education, if he conceives it not merely as an institution in which children acquire a few basic skills but as *a dynamic social force through which children begin to become socially and economically literate,* then the first basic responsibility of the evaluator becomes clear. It is his task to study both the developmental requirements of children and the emerging direction of a dynamic and democratic society in order, ultimately, to answer four questions:

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[15] For a provocative view of issues before us, see Peter F. Drucker, *America's Next Twenty Years* (New York: Harper & Bros., 1956).

(1) What is the purpose of education?
(2) What is an educated man?
(3) What kind of school experiences promise to help create this "educated man"?
(4) How do we work together to create the educative environment that embodies the learning experiences that produce the educated man?

The remaining chapters of this book deal with the school experiences that promise to produce mature citizens, and with the group processes and group action needed to create a good climate for learning. But, first, what is our goal?

WHAT IS THE PURPOSE OF EDUCATION? The values one cherishes are the source of the purpose he seeks through education. Each person, each group, concerned with the improvement of education must first clarify and accept a given goal that thereafter serves as a criterion or touchstone by means of which to decide the learning experiences our children need. In other words, each aspect of a potential educational program is first weighed, then accepted or rejected in view of whether or not it is consistent with the evaluators' sought goals.

The developmental requirements of children are one imperative consideration in determining the purpose of education. What social, emotional, physical, and intellectual elements must be blended in the school program to insure that children *will* learn desirable attitudes and useful information? The requirements of a dynamic society are a second basic consideration. Any decision as to the purpose of education is meaningless unless both the learner and his social environment are viewed with wisdom and insight.

Without further preamble, the writers would like to share their concept of the purpose of education, even as they acknowledge that the reader ultimately must weigh and choose his own.

The purpose of education, as we see it, is to make children and youth receptive to, and eventually accept, refine, and preserve, human values—that is, to appreciate, understand, and create beauty and to reflect truth and integrity in thought and action. We also find ourselves in agreement with Alfred North Whitehead, who said in the

1920's, "What we should aim at producing is men who possess both culture and expert knowledge in some special direction.[16]

AND WHAT IS AN EDUCATED MAN? If it be the purpose of education to extend, preserve, and improve human values, what then is an educated man? The educated man is one in whom the power of the human mind has been set free. He knows how to apply his knowledge wisely in the process of recognizing sound values and in using these values as guides to intelligent thought and action.

The educated man is one who has learned to take pride in human achievement and to appreciate the dignity of labor, whether it be with one's mind or one's hands. He has learned the meaning of social responsibility, and he sees clearly that human rights can be protected only through responsible citizenship. He senses that opportunities create obligations and that possessions bring social duties.

He has assimilated the meanings of democracy and has mastered the techniques and machinery that make democratic practices workable. And he uses the tools of the literate person critically and well, so as to be useful to himself and to society.

Finally, the educated man understands ethical human relations. He has faith in others, irrespective of their color or religion, and he has faith in himself and in mankind's destiny.

Whatever the time, whatever the energy that must be invested, the kinds of elementary schools that will help to create the truly educated man are worth our best efforts.

■ Summary

Elementary education in the United States needs to be evaluated continuously for at least two major reasons. First, the schools must be studied and their programs improved in order to keep them abreast of cultural changes that require new content and new methods of teaching. Second, the curriculum must be modified in the light of social trends, so that children's educational experiences will anticipate, insofar as possible, the demands that a dynamic society is likely to make of them.

In order to plan better educational programs, administrators, teachers, and parents must think in a context of social change. This demands of them both a grasp of changes that have taken place, especially since 1900, and a sensitivity to powerful forces that are influencing the shape of the future.

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[16] Alfred North Whitehead, *The Aims of Education* (New York: New American Library, Mentor Edition, 1949), p. 13.

Once they have informed themselves of the direction and significance of social changes, persons evaluating the elementary school need to decide on the purpose of education—as they see it—and with due regard for the principles that govern child growth and development, devise the educational designs that will produce the truly educated man.

The years children spend in elementary school are crucial, formative ones. In Euripides's words, "Whosoever neglects learning in his youth loses the past and is intellectually dead for the future." Through cooperative group evaluation we must do our best to see that our children use the wisdom and beauty and skills of the past in building a humane civilization that is worldwide.

Discussion Questions and Suggested Activities

1. What are some of the ways in which your own daily life has been changed by both socio-cultural trends and technological developments in the past decade?
2. What are some of the ways in which parent-child relationships have been complicated and strengthened by social changes since 1915?
3. Is some type of "power élite" (see p. 24) essential to society? If so, what needs does this élite fill and what safeguards, if any, are necessary to control its functioning?
4. If possible, plan a class visit or an individual trip to one of the plants or factories in your vicinity. Examine at first hand how automation is applied.
5. Try your hand at writing a personal statement as to the purpose of education as you see it.

Selected and Annotated Readings

1. Allen, Frederick Lewis, *The Big Change*. New York: Harper & Bros., 1952.

   An excellently written résumé of social changes from 1900 to 1950. Presents a striking word picture of how American life has been altered during this time interval.

2. Chase, Stuart, *The Proper Study of Mankind*, rev. ed. New York: Harper & Bros., 1956.

   On the basis of research and interviews with social scientists, the

author suggests how such fields as anthropology and psychology are providing us with new insights into human behavior.

3. Drucker, Peter F., *America's Next 20 Years.* New York: Harper & Bros., 1956.

   A pithy statement with respect to the emerging future. Contains interesting viewpoints on such factors as population trends and the role of automation and suggests probable issues and problems that may confront the U.S.A.

4. Lippmann, Walter, *The Public Philosophy.* New York: Mentor Books, 1956.

   A paperback edition of a series of essays that originally appeared in *The Atlantic Monthly* magazine and in a hard-cover edition published by Little, Brown & Co. Lippmann presents a provocative re-examination of traditional democratic ideals and warns of possible threats to the continued success of democratic institutions and values.

5. Mills, C. Wright, *The Power Elite.* New York: Oxford University Press, 1956.

   Although his prose sometimes is a bit melodramatic, this Columbia University sociologist makes an interesting, although unevenly documented, analysis of control groups in American society.

6. Riesman, David, *The Lonely Crowd.* New York: Doubleday Anchor Books, 1955.

   A paperback abridgment of one of the more widely discussed books of the past decade. The author studies changes in the "American character" and the trend from inner-directed to other-directed behavior.

7. Shane, Harold G., ed., *The American Elementary School.* Thirteenth Yearbook, The John Dewey Society. New York: Harper & Bros., 1953.

   A number of contributors sketch backgrounds of and trends in elementary education. Useful historical outline of elementary education is given in appendix.

2

Developing Sound Personal-Social Values in Young Citizens

HENRY ADAMS once said, "A teacher affects eternity; he can never tell where his influence stops." How important it is, therefore, that we be conscious of the roles of parents and teachers in developing the values of children so that, in the years ahead, their personal-social activities will be a credit to them—and to us. This chapter frankly faces some of the problems and difficulties that confront adults when they assume the responsibility for creating and preserving, through the elementary curriculum they design, those values they cherish.

"Evaluation" was interpreted in Chapter 1 as a cooperative process of inquiry through which parents and teachers may gauge the school's progress toward sought goals. It follows that such a process cannot be carried forward unless some concensus is reached with regard to goals or objectives. Such a concensus can be achieved only after the individual members of a school staff interact and reach communities of opinion that are appropriate in each unique school situation. To help arrive at a concensus there are broad principles that can guide and direct efforts to improve school living. And, even if not fully accepted, such principles serve to sharpen thinking on the part of the faculty and of community groups by encouraging both to decide why they do *not* choose to accept a given goal.

In the pages that follow we offer for the evaluator's consideration certain value-goals or, more simply, desired citizenship outcomes, of the elementary school program. There is no intent on the part of the writers to force *their* educational objectives down the throats of others. Rather, the intent is to stimulate readers to develop their *own* sensible and practical approach to appraisal of the curriculum by sharing with them some ideas as to the suitable personal and intellectual values our children need for effective living in A.D. 1975 or 2000.

But, first, a word regarding cautions to be observed when a school staff and other citizens seek to arrive at an agreement on values to be sought with children.

▪ Educational Jargon as a Problem in Evaluation

Whenever a group takes up the initial task in appraisal—deciding what values it desires to seek with and for children—almost certainly there will be problems in communicating ideas clearly. We may, for example, leave a meeting with the happy feeling that all persons present finally are in agreement, only to learn the next day that our colleagues attached a different meaning to the labels used to describe educational processes, goals, or practices.

Unfortunately, in recent years the field of education has been vexed by considerable education jargon. We find such words as *integrate, correlation, fusion, permissive atmosphere, progressive education,* and so on, which mean different things to the various people who use them. As a rule, it is wise to follow Aristotle's advice to "think like wise men but use the language of the people," particularly when parents are involved in curriculum planning.

Now let us look at some of the pitfalls of faulty communication that educators must side-step if they are to agree on the citizenship goals of elementary education.

AVOIDING "LOADED" WORDS AND PHRASES. A notable orator was once asked to explain the secret of his success as a public speaker. "Well," he said, with a twinkle in his eye, "when disseminating your eudaemonial and esoteric cogitations, whether nugatory and jejune, platitudinous or profound, be a paradigm in eschewing not only obloquy, but also polysyllabic and sesquipedalian nomenclature. In other words," the orator concluded, with a grin, "talk simply and naturally —and above all don't use big words!"

Educators are accused, with some reason, of being infected with a verbal occupational disease, a symptom of which is an excessive use of pedaguese. This was recognized by Mario Pei, the linguist and semanticist, when he commented that teachers "thrive on a diet of 'integration,' 'correlation,' and 'motivation,' "[1] to which he might have added, "core curriculum," "insight," "dynamic," and scores of similar words with specialized and frequently confused meanings. Good's *Dictionary of Education* is of some help in the situation, as is the *Encyclopedia of Educational Research,* but the latter in particular is a bit heavy to carry about to the professional meetings where jargon reaches its height.

Because of the prevalence of "loaded" words—words freighted with special professional connotations—we urge that statements bearing on values be simply and understandably phrased. A genuine effort is made to observe this precept here.

DANGER IN CATCHWORDS. The catchword in education is blood-brother to the "loaded" word. Often the catchword *is* a "loaded" word that comes to mean increasingly less as the number of educators using it grows larger and larger. Although confusion is slowly diminishing regarding *integration,* the following verses illustrate the verbal imbroglio from which teachers must extricate themselves before they can appraise their work effectively.

DID YOU INTEGRATE TODAY?[2]

You may orient and implement
And scarcely ever regiment;
You may meet the needs of every child
And keep your class from running wild;
But, sister, if you want your pay,
Did you integrate today?

You may organize and socialize
And daily individualize;
You may meet all differences
'Til you bring the kids to their senses;
But, sister, you'll be on your way
If you didn't integrate today.

You may coordinate, evaluate
And all your subjects correlate;

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[1] Mario Pei, *The Story of Language* (Philadelphia: J. B. Lippincott Co., 1949), p. 177.

[2] Attributed to B. Joseph Furbarg of the Robert Fulton Public School, Philadelphia.

You may know your attitudes and skills
And build up habits till it kills;
But, sister, if you're here to stay
Did you integrate today?

You may motivate and orchestrate
And make your Sup's heart palpitate;
You may play a snappy instrument,
Promote to the tune of one hundred per cent;
But, sister, you won't be so gay
If you didn't integrate today.

She never did indoctrinate
Or ever fail to activate
She taught her units by the score
Pared curriculums core by core
But she isn't with us anymore
For everywhere the gossips say,
"She didn't integrate one day."

Whether the teacher in the poem was "integrating" is no more of a moot question than whether the administration knew the connotations of the word. Certainly the verses reveal a semantic problem in education.

RUNNING A GOOD IDEA TO DEATH. Allan Abbott, a writer with a flair for whimsey, some years ago published a booklet that poked gentle fun at the way ideas advanced by educational thinkers may be ineptly implemented in classroom practice. One of his targets was the tendency of school workers to run a good idea to death. In the "Fish-centered School," he elaborates with humorous detail the way in which the essentially sound value of teaching subject matter through an activity program can be mutilated if carried to extremes.

A FISH-CENTERED SCHOOL[3]

A Unit of Instruction on Van Dyke's
"Fisherman's Luck"

Purposes:

(1) To enjoy the experience of reading the essay
(2) To share this enjoyment with a social group
(3) To enjoy vicariously the experience of fishing
(4) To share this enjoyment with a social group
(5) To create something which shall express these satisfactions

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[3] Allan Abbott, *A Fish-centered School and Other Educational Whimsies and Fantasies* (New York: The Bureau of Publications, Teachers College, Columbia University, 1936), pp. 1-2.

Aims:

(1) To learn about trout-fishing
(2) To learn about other kinds of fishing
(3) To learn about the value of fish as food
(4) To learn about the economic importance of fish
(5) To learn the place of fish in secular and religious history
(6) To learn the effect of fish and fishing upon language
(7) To learn to manipulate fish—living, dead, and cooked

Objectives:

(1) Vocational: opportunities and needs in fishing; is it a blind alley vocation?
(2) Wise Use of Leisure: what wise men have fished?
(3) Health: food value of fish: vitamins in cod-liver oil
(4) Home Making: preparation and cooking of fish
(5) Social-Civic: Fisheries in colonial days; in the Revolution; in connection with arbitration. How we always won
(6) Religious and Ethical: Jonah; miraculous draught of fishes; the fish as religious symbol; keeping Lent
Kindness to fish

Big Objective:

To realize the place of fish in the modern world

Goal:

The fish-centered school

Activities (leading to further activity):

Unit I. (fusion with science) Make and care for an aquarium.
Unit II. (fusion with home economics) Prepare and serve: Creamed codfish—boiled salmon—fish chowder.
Unit III. (fusion with commercial education) Study the mail-order ads. of Frank E. Davis, and make better ones.
Unit IV. (fusion with language) Make a list of such expressions as "poor fish," "gudgeon" (obs.), "sucker."
Unit V. (fusion with library work) Cut out all the pictures of fish from books in the library, and paste them in a notebook.
Unit VI. (fusion with handwork) Make a seine of all the string in all your homes (creative group-project for the entire class through the term).
Unit VII. (fusion with composition) Write a letter to Dr. Van Dyke, presenting to him the seine, scrapbooks, chowder, aquarium, etc., and inviting him to address the school.

Unlike the "fish-centered teacher" conceived by Abbott, persons engaged in sound appraisals of the elementary school will want to avoid abusing promising ideas by stretching them beyond the bounds of reason.

THE SOUND-FOR-SUBSTANCE FALLACY. Quite unwittingly, educators sometimes are guilty of a sort of gentle charlatanism by convincing the school's patrons and themselves that an educational program is operating adequately when the program consists of little more than a label. The following illustration serves to make the point.

The board of education in a Midwestern city, which boasted eight elementary schools, for a number of years employed a truant officer. He previously had taught for some time in a mediocre fashion and had been "promoted" to truant officer partly to protect children from prolonged contact with his personality during the school day. Subsequently, one of the state colleges surveyed the schools, and among its survey recommendations urged that a director of elementary school guidance be appointed. The board of education and the superintendent were eager to comply with the advice they received from the college, but apparently they lacked funds for a guidance specialist. They found a solution, however, through semantic magic. The truant officer was given the title of Director of Guidance!

There is particular danger in the sound-for-substance pitfall into which the board of education and superintendent tumbled. Not only was the need left unsatisfied, but the community was given a false sense of security as to the existence of a "guidance" program, which actually continued to consist of the pursuit of truants. All too frequently, similar inadequacies are covered up by imposing labels, the public is reassured, and the interests of children are lost in a verbal limbo. "School psychologists" actually may spend their time exclusively with the testing program; "curriculum directors" may use their waking hours helping the superintendent with every matter except curriculum improvement; supervisors of visual education may be little more than film projectionists when their duties are analyzed.

LET'S KEEP EDUCATION SEMANTICALLY SOUND. An old Oriental proverb says that "The beginning of wisdom comes when things are called by their right names." Teachers are deeply involved in verbal symbols because of the verbal nature of many aspects of teaching in the elementary school; hence it is especially important, as they evaluate their work, that the more serious pitfalls be avoided. Clear-cut statements of values, understandably expressed, seem to be a foundation for successful appraisal—as well as the beginning of wisdom.

The delicate vehicle of language creates two problems as desirable citizenship outcomes are discussed in the next section. First, there is the possibility that the reader will accept a meaning intended by the writers but interpret it in a fashion other than the one intended. Secondly, there is the possibility that a written term will be rejected because it carries undesirable connotations traceable to the reader's background of experience. To avoid the horns of this dilemma, we have made rather extensive use of illustrations, in the hope that the tyranny of terminology can be overthrown.

▪ Building Desirable Citizenship Values and Attitudes in Young Americans

Desirable citizenship values and attitudes are considered here as virtually synonymous with the basic values that teachers and parents alike hope to develop in the growing child. Regardless of the nature of opinions held by the parents and teachers as to how sound citizenship attitudes should be achieved, the actual goals are probably similar. Good citizenship is compounded of such ingredients as personal adequacy, a sense of responsibility, and related qualities deemed important by the majority of adults who give any thought to the coming generations. However, before we proceed to state explicitly a list of citizenship outcomes, we emphasize that this listing must be examined and given meaning for any persons choosing to use it in their work or study. It is only through discussion and interaction that words become invested with real meaning for the individual whose conduct they affect.

For the evaluator, the possession of intellectualized values is a value in itself. Unless value-goals—goals that are developed in the light of one's personally analyzed beliefs—are clear, appraisal is pointless and the time it requires might better be spent in reading, fishing, or attending the opera.

CLEAR, CRITICAL, AND CREATIVE THINKING. The school doubtless never existed that did not claim as one of its objectives the goal of developing children's ability to think. Interpretations of "learning to think" have, of course, varied tremendously—from those schools with conservative, drill-centered programs to those advocating flexible situations in which great emphasis is placed upon active learning. These divergent views of how children learn complicate the value-goal of clear, critical, and creative thinking. Agreement is easily reached on the goal, but the paths leading there are subject to lively controversy.

Learning is creative and involves real problems that the child can solve satisfactorily at his own level. Many schools are slow to recognize this fact, and some schools actually inhibit learning. A capable teacher of the intermediate grades tells the story of a transfer student who entered grade 5 while the group was studying the Scandinavian countries. Work on Norway and Denmark had been completed, and a study of Sweden was about to be launched. The teacher asked the newcomer if he would help her tell the children a bit about Sweden on the following day and requested that he read material dealing with the country in a picture encyclopedia for children. The lad accepted the assignment and sat down on the window ledge to read. He was immersed in the book for so long a time that the teacher decided the text was too difficult for him to read. As she looked over his shoulder, he glanced up wistfully and asked, "How much farther do I have to read? I've just finished the part on 'Sweet potatoes'."

Here was a child who was accustomed to doing as he was told! Perhaps he would have read on through "swimming," "Swiss Guard," "Switzerland," and "sycamore" if the teacher had not stopped to investigate. Apparently the school from which he had come was one in which the staff believed in the dictum:

> Yours not to reason why,
> Your task with us is to comply.

Many teachers confuse giving expected or "accepted" answers with ability to think. For example, during an arithmetic class the teacher held up two pencils and asked, "If these cost 10 cents, how much did each pencil cost?" When one child said, "You can't answer that because maybe they weren't both the same price," her retort was, "Don't be impudent!" The child in this instance actually was thinking better than the teacher, even though he may have been baiting the lady in the process.

Such anecdotes illustrate the problem facing the evaluator as he weighs means of stimulating clear thinking. Ways of avoiding some current practices that inhibit thought properly should be examined in appraising the citizenship goal of clear, creative, and critical thinking. Such appraisals assume greater and greater importance as children growing to adulthood are summoned to face the accumulating problems of living.

PHYSICAL WELL-BEING. Vigorous physical health in children is a proposed value to be sought by the schools; a value that is likely to be completely acceptable to persons discussing the directions elementary education should take. Since physical health is a patently noncontroversial value, why does it appear in this grouping of proposed values to be attained? The answer is that widespread neglect of this universally recognized value is the rule rather than the exception in uncounted school districts.

The success with which child health, as an objective of elementary education, is attained, is directly concerned with the *extent* to which a school accepts and assumes broad responsibility, for the physical welfare of children. Periodic physical examinations, prompt attention to playground injuries, and keeping height and weight records are not in themselves sufficient to acquit the school of its responsibilities for children's physical welfare. Too frequently a marginal program of inspection satisfies the local district, while real harm is being wrought by unsatisfactory conditions in the school: poor light, ill-ventilated rooms, or lack of play space.

Again, child health may be neglected by failure on the part of some schools to recognize that children who are poorly nourished are, or should be, of direct personal concern to the staff. One of the writers at one time visited a country school on the edge of a large city. He noticed that an otherwise sociable girl of eight or nine drew off to herself at lunchtime. Investigation revealed that she was sensitive to the fact that her lunch might invite ridicule. It consisted of some cooked potato peelings and a small bird that appeared to be a sparrow!

A realistic approach to the goal of health will recognize that real or potential physical problems of children, in whatever form they appear and whatever their cause, call for direct action by the classroom teacher, proper school authority, or welfare agency. Here, in the field of health, is a vital value indispensable to effective citizenship waiting to be attained through aggressive action on the part of public education.

Mention must also be made of the need, within the framework of the public schools, to satisfy the special needs of children with physical disabilities: those with impaired vision, the deaf and hard-of-hearing, and others who can be helped in the regular classroom. Cooperation among adjacent school districts, improved state support, and imaginative approaches to ways of helping the child with special difficulties are not yet sufficiently developed.

MENTAL AND EMOTIONAL HEALTH. The psychological health of children is bound up with physical welfare, but it can be more effectively stressed if considered separately. Mental and emotional health constitute a third value regarding the importance of which there is little disagreement. In many schools, the child in a serious mental or emotional problem-situation receives considerable help and attention from the teacher, special personnel employed by the board of education, or both. Mental and emotional health are emphasized here partly because some simple yet basic premises on which they rest are slighted. For example, does the school program really stimulate and satisfy children? Are boys and girls honestly respected and not pushed around, literally or figuratively? Do teachers deliberately plan their work with reference to principles of mental hygiene and the role of emotion in learning?

In any evaluator's appraisal, the nature of provisions for psychological health deserves inclusion, not only in listings of sought values but in analyses of practices that build emotional stability and facilitate mental health.

EQUALITY OF EDUCATIONAL OPPORTUNITY. One value in which Americans take pride is "fair play." Quite often this fairness is associated with equal, identical, or nonpreferential treatment. We take our turn in cafeteria lines and grocery stores, share goods in short supply, and waste no respect on the neighborhood bully who selfishly tries to run the show when playing with other children at the corner lot. Good citizenship and contributive citizens, it is rightly assumed, depend upon husbanding human resources, since much of the real wealth of a nation resides in the productiveness of its people. Truly, then, equality of educational opportunity belongs in a roster of value-goals. Without it, many human resources inherent in individual children are wasted.

Unfortunately, the concept of equality of education is sometimes interpreted to mean that all children in school must be treated *alike*. Few conclusions could be further from the truth. To treat each child fairly, to equalize educational opportunity, we must treat each child differently because each is unique. In other words, equality in learning can be achieved best through individualizing teaching. Aside from monolithic efforts made years ago by Washburne, Parkhurst, Search, and a few others, too little has been done to study and to experiment with comprehensive ways in which the school can be adjusted, respectively, to the slow learning, the average, and the gifted child. In current educational literature, there is a surprising dearth of reports on efforts to help the mass of our children to reach higher levels of self-expression and contributiveness.

USEFUL SKILLS AND KNOWLEDGE. Any résumé of desired citizenship outcomes must consider functional skills and knowledge that make the child of use to himself and to society. Paradoxically, many schools have been unduly preoccupied with only one interpretation of the skills and goals of knowledge: that the "ability to give answers" amounts to an education. It is the *functional utility* of what is learned that lends significance to experience, not merely the quantity of the subject content that is assimilated. The following incident will illustrate this point.

A superintendent visited a sixth-grade classroom in the consolidated school under his direction during a geography quiz. It was a "stiff" test, which required a knowledge of state capitals, products, occupations, rivers, and so forth. The superintendent borrowed a copy of the quiz and, a day or two later, distributed duplicates at a staff meeting with the request that all teachers present take the examination. The result was depressing. Every person failed with the exception of the sixth-grade teacher, and she made a 70, the lowest passing grade she had accepted from the children!

Were the teachers at fault because they did not know the answers? Hardly so, since adults are not expected to remember all the minute items to which they were exposed during their own long years in school. By the same reasoning, time spent on the rote learning of place geography often is of little profit to a sixth grade, such as the one in question, or to children at any other grade level for that matter, unless it is rich with meaning that reaches beyond mere texts and facts. What, then, is functional learning? It may be described as *learning for which there is a reason that children understand and accept,* both because they have participated in the planning of the experience and because they see the relationships existing between the learning and their own lives.[4] Useful skills and knowledge will meet this test.

SOCIAL AND ECONOMIC LITERACY. The mature citizen is socially and economically literate. He recognizes that the general welfare in a democracy is composed of elements which are socially desirable for himself and for others, and he has insights into economic forces in modern life as well as into the way they affect human beings. The citizenship outcome that reflects this kind of literacy can best be fostered through a school program providing actual practice with social and economic elements found in the life of the school.

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[4] See Chapter 5 for a discussion of the criteria that the teacher may use in selecting learning experiences.

A few schools, pioneering in improved social and economic understandings, have blazed interesting trails for others to follow. One village school enrolling grades 6 through 8 found over 20 ways in which, within a conventional school framework, children could be helped to learn many of the social and economic facts of life. The school store is organized as a cooperative in keeping with Rochdale principles; a student loan office permits 11- and 12-year-olds to borrow 50 cents on personal signatures (and up to $3 with a teacher as co-signer); children who do the dishes are unionized and have a bargaining contract with the "management"; insurance is issued to protect the individual from losses due to dish breakage in the cafeteria (11 cents for three years); and many more miniature replicas of adult organizations are in operation. A nursery that grows plants from seedlings, apiaries from which honey is harvested, a research company making products useful in school, a projectionists' group operating school film equipment, a livestock corporation, and a printing company are among other enterprises combining useful work and service.[5]

No unusual physical facilities, only artful use of the space available in most schools, is required for this approach to enlivening experiences of children and binding them together meaningfully. The staff, on the other hand, must be unusually sensitive to ways in which this literacy for twentieth-century living can be built. Hours of planning are requisite, and, above all, the staff must have a clear understanding of what comprises educative experience. As new learnings become a part of school living, something perforce must be eliminated, wholly or in part. A new approach to literacy cannot be made without reinterpreting old value patterns, of which conventional subject content, punctuated by hourly classroom bells, are an integral part.

THE DEVELOPMENT OF DEMOCRATIC SKILLS. The need to democratize education has provided speakers at teachers' institutes with a ready-made topic for two or three decades past. Sometimes increased opportunity for all children is the theme. At other times testing programs, biased subject content, and variations in economic support among the states, or in a given state, are attacked as militating against democratic self-realization.

In elementary education in particular, two other aspects of democracy in public schools are beginning to receive the attention they deserve as components of desired citizenship outcomes. One is the need for democratic practices that permeate the entire structure of the school, from classroom through staff and parent meetings to community relations; the other is a sharpened understanding of the characteristics of democracy as it operates in a good school.

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[5] For a detailed account, see S. R. Logan, "Adventuring with Little Corporations," *The Clearing House*, 20:2 (October, 1945); and "More Adventures with Little Corporations," *The Clearing House*, 21:4 (December, 1946).

It is coming to be recognized that classroom democracy is most likely to flourish *when the atmosphere of the school itself is democratic.* In such an environment, each teacher knows that his contributions and opinions are regarded with respect. His views on the improvement of the program receive full consideration, and, circumstances permitting, they are given fair trial in the school. At the same time, the school climate lends itself to significant gains in the realization of newer concepts of the meaning of leadership, participation, and responsibility—three qualities of special importance in developing democratic skills. Democracy among staff members is vital, because when it is practiced in staff relationships, democracy tends to be practiced with children by the individual teacher. The reverse is also true. If the school is authoritarian, arbitrary teaching usually becomes the rule.

When considering democratic skills as important citizenship outcomes of the elementary years, we need to comment on changing interpretations of ways in which leadership ability, participative activity, and acceptance of responsibility can be improved. Schools in former times took pride in developing leaders—but only in the sense that personal leadership was developed on the playing fields of England's Eton. This was a leadership which presupposed that outstanding capacity should be fully developed in the few and intelligent followership in the majority. More recently there has been increasing recognition of leadership as a group function. This assumes that "two heads are better than one" and that many heads thinking together are best of all.

In a group-leadership situation, anyone who can contribute to the realization of group purposes is, during the moment of his contribution, the leader. There are differences in function and in the nature of contributions made, but no differences are recognized in the rank of the persons contributing. Ideas stand on their merits. In elementary school classrooms, leadership is recognized as a group function when children share in the planning, aims, and execution of activities. Each child helps to direct the development of a given enterprise or project to the degree that his proposals find acceptance. Such "town meeting" interaction, like most skills, is learned through practice and is fostered by the teacher who is aware of the processes through which children acquire mastery of democratic procedures.

Participation is an integral part of living democratically and should come to be accepted wholeheartedly by teachers, despite the fact that participation requires them to invest quantities of time and patience, especially during children's early years in school. It is necessary that boys and girls participate in reaching decisions by which they are expected to abide. Talk-it-over sessions are applicable to sound group planning as well as to matters bearing on discipline.

Responsible behavior on the part of a child is a democratic skill in the sense that it is a learned behavior. With due allowance for the backsliding that must be anticipated from time to time, children, as they mature, should be expected to take over more and more responsibility for personal self-control and for social-group control of individual conduct within a group. In fact, increasingly well-controlled self-direction is one of the important characteristics of maturity. The progressive education movement placed desirable emphasis upon freedom and self-direction, but whether this "freedom" meant that children should do largely what they pleased, in and out of school, became a confused issue. With passing time, a clearer picture of the relationship between freedom and responsibility has emerged. It is now generally accepted that children should enjoy complete freedom to the extent that they are capable of accepting responsibility for it. Succinctly, children should enjoy freedom to—not freedom from; freedom *to* plan, *to* develop purposes, *to* achieve; not freedom *from* responsibility, *from* self-direction, or *from* the obligation to cooperate with their peers in learning experiences for which the teacher is the guide.

Leadership as a group function, participation in decisions, and self-responsibility are concepts typical of those to be developed in helping children grasp the democratic skills essential to good citizenship. Familiarity with the machinery of democratic interaction is not, however, sufficient in itself.

DEVELOPING AWARENESS OF AND LOYALTY TO DEMOCRACY. Children must also be assisted in the process of recognizing democracy as the best means of living together yet devised, and to develop an active loyalty to its tenets. In the face of competing socio-political philosophies, it is absolutely vital that the elementary school, by example and precept, create in children an aggressive faith in American democracy. By this we mean the desire to strengthen and to extend democracy both at home and abroad, starting at home with situations most easily understood by children.

The school has no choice, if democratic values and traditions are to remain vigorous, but to see that rising generations become familiar with the successes and with the failures of the American people in practical government by the people. Familiarity with the symbols of democracy is not enough. Beginning no later than the intermediate years of childhood, school organization and the content of the enterprises planned with children should be examined to determine that an emotionally sound, intellectualized loyalty to the ideals Americans live by is assured. Representative of these ideals are a willingness to serve personally in order to insure better community living and an appreciation of distinctive American achievements in drama, art, literature, music, agriculture, education, philosophy, medicine, technology, and industry, coupled with an appreciation for foreign achievements in similar fields.

Children also must be given help in finding faith both in themselves and in others, regardless of ancestry or religion, because it is through such faith that they will find a security based upon a knowledge of what is *good,* both for themselves and for others. To this should be added accurate knowledge of a changing world and its people, plus a compulsive will to *understand* this world and its basic features. Last, and decidedly not least in importance, the development of an awareness of the deeper meanings of democracy should prompt in each boy and girl the desire to extend an outreaching hand of friendship to others in building a more humane, friendly, and international culture than preceding generations have achieved.

A big order for elementary schools? Perhaps. But men cannot rise above their vision, so elementary education's goals should be set high. A better world for all men can be found neither by looking backward nor by looking downward. "*Ad astra per aspera*"[6] is needed as a slogan by others than the Kansans who chose it for their state motto.

SKILL IN HUMAN RELATIONS. A few years ago, a large West Coast aircraft company made a study of employee turnover. One finding was the fact that a substantial majority of discharged employees had been fired because of deficiencies in human relations. Some of these employees had refused to work with certain minority groups or had annoyed female workers with unsolicited attention or had been trouble-makers in similar ways. Inability to handle equipment and general inefficiency trailed far behind as sources of difficulty. In public education, the need to meet problems in human relations is similarly documented in a publication sponsored by the American Council on Education,[7] which presents a series of case studies that not only dramatizes the need for improved relations but suggests some ways in which pressing needs can be met.

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[6] Approximate translation: "To the stars the hard way."

The desired citizenship outcome of ability to live with one's fellows is especially challenging, because children are born "neutral" with regard to attitudes and are shaped by the nature and quality of experiences that are influenced by parents, teachers, and others. The story is told of a five-year-old who was not liked by his companions in kindergarten. During the latter part of the year, his mother was delighted when he developed a lively friendship with another child who seemed popular in the group. To foster the friendship, she invited her son's friend to lunch. Several hours later, when the guest had departed, the mother said, "Why didn't you tell me that Joe was a Negro boy?"

"Negro boy?" her son responded with a rising inflection of puzzlement.

Inferring that the child did not know the word *Negro*, the mother tried again. "Why didn't you tell me that Joe's skin was so much darker than yours?"

There was a long pause. Then the youngster said, "I'll have to look tomorrow."

Regardless of its authenticity, this poignant little anecdote makes the point that adults perpetuate intergroup-intercultural misunderstandings and that parents and schools together have, if they can rise to meet it, an opportunity to eradicate tensions and feelings of ill-will in a single generation. There is no worthier value-goal.

A SUMMARY OF CITIZENSHIP OUTCOMES. Physical well-being, mental and emotional health, developing individuality and individual promise through equal opportunity, the stimulation of clear, creative thinking, acquisition of useful skills and knowledge, building the rudiments of socio-economic literacy, achieving familiarity with the practical machinery of democracy at the child's level, creating insights into the meaning of democracy and loyalty to its ideals, and developing skill in human relationships are nine citizenship outcomes proposed to teachers concerned with the improvement of elementary education through evaluative procedures. They are desirable value-goals for the teacher himself as well as for the children.

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[7] American Council on Education, *Elementary Curriculum in Intergroup Relations* (Washington, D. C.: The Council, 1950).

Prior to an examination of what these citizenship outcomes suggest for classroom practice, and how progress toward them can be gauged, we should reiterate that the final interpretation of any goals resides with the teacher working cooperatively with others. Values can best be endowed with a concise, clear meaning through the interactive process. In this process, each participant shares ideas with others, influences others, and, in turn, is influenced by them. The desired result of this "circular response" involving mutually stimulated growth is the creation of group goals. These are goals that are understood by the group because all hands have shared in the labor of thinking through, designing, and redesigning the most effective educational program they can devise.

A further pertinent observation is that value-thinking cannot take place in an intellectual vacuum. Elementary school staff members, in seeking to attain such goals as the nine proposed (or others more to their liking) must weigh choices and decisions in terms of child development and a broad range of related professional knowledge.

THE CHILD'S OWN AWARENESS OF DESIRABLE CITIZENSHIP VALUES. Before we terminate this review of values, attitudes, and information that seem of lasting significance, one more comment is in order. *It is important that children themselves become actively aware of the values with which teachers and other adults are seeking to permeate the home and school environment.*

As he moves through the elementary years, each child should be helped to become conscious of *his* role as a builder of tomorrow. Furthermore, he should be aware that the way people strive to live and work together in America is more than a happy accident. It is an evolving social design in which he has a part to play in making the American dream of a decent, humane civilization more and more of a complete reality.

▪ Parent-Teacher Cooperation in Creating Sound Personal-Social Values in Children

The home is the child's first school and his parents are his first teachers. Even after the child begins school, his mother and father continue to play an important role in shaping his values and the attitudes in which they are reflected. Consider the following simple arithmetic. On the average, a child spends 25 hours per week in the classroom for 36 weeks each year, some 900 hours in all. If we allow 3285 hours for sleep—9 hours daily out of the 24—there remain 4575 hours, year after year, when parents have the lion's share of responsibility for guiding a child's habits.

Clearly, the present exploration of values to be sought with and for children would be incomplete unless attention were directed toward a discussion of ways in which teachers can help parents share actively in the school's concern for the individual child's progress toward maturity. Fortunately, parents are natural allies of the school. The vast majority of mothers and fathers have a deep and genuine love for their young, which prompts them to seek and accept counsel as to how a son or daughter can be even more successful in school than they were. Teachers generally do a good job in helping parents understand the school's program, encouraging attendance at P.T.A. meetings, and arranging for personal conferences about Johnny's or Jane's progress. But teachers also need to help mothers and fathers recognize a point that is sometimes overlooked: *the foundation for a child's happiness and success in school carries over from the quality of family living in the home.*

Parents should be helped to see that they are teachers in the literal meaning of the word. It is a real contribution to parents when the classroom teacher or principal can bring them to understand that much of what the child is and will become is determined before he even enters kindergarten or first grade. With tact, but without pussyfooting, teachers should point out that the home and school need to operate as a mutually complementary unit in directing child growth. During the years children spend in school, the time is ripe for deliberate and continued efforts to help parents observe certain down-to-earth principles that will reinforce the school's efforts to realize desired values. A major contribution that the home can make is in cooperating with the schools to see that children come to feel secure and stay that way. Only the secure child has a reasonably good chance to personify the desired citizenship outcomes many schools are seeking. No professional mental hygienist but a shrewd observer, Stuart Chase once commented: "The lack of security in childhood brings many dire results, examples of which may be seen in any mental hospital or any mob out of control. On this one need the specialists meet in practically unanimous agreement."[8]

Some of the qualities in family living associated with a sense of security, and which might well be underscored in the school's parent relationships, now follow.

CLARIFICATION OF HOME/FAMILY VALUES. Moral security, an awareness of what is "right" and "good," is one of the important gifts that suitable home living bestows on children. Irrespective of how successfully they may conceal the desire, most children *want* to know what is fitting and proper behavior in the life situations that confront them. Confused or confusing values that find expression in the home work against this end. With reference to attitudes of parents regarding education, Overstreet writes:

> With the natural hazards of life vastly multiplied by the confusions of his culture, he [the child] faces an abnormal temptation to remain dependent and irresponsible. It is never easy, even at best, for the individual to build sound knowledge linkages with his world; but it becomes infinitely difficult for him to do so in a cultural atmosphere where education is both exalted and despised; where the same two parents send him to school, want him to bring home grades they can view with pride, talk about the impracticality of what is learned in school, admire people less for what they know than for what they own, and make it clear that teachers are nobodies compared with businessmen and movie stars.[9]

So, in this and many other respects, children are puzzled by contradictions and inconsistencies in the expressed beliefs of mother and father. It is one of the tasks of teachers to work on the problem so that children experience less difficulty in their quest for certainty.

POSTPONEMENT OF PREMATURE EXPOSURE TO ADULT PROBLEMS. Granted that children must face problems if they are to think creatively, the problems with which they grapple should be at their level. A psychopathologist has defined the problem of premature exposure of children to adult difficulties:

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[8] Stuart Chase, *The Proper Study of Mankind* (New York: Harper & Bros., 1948), p. 11.

[9] H. A. Overstreet, *The Mature Mind* (New York: W. W. Norton & Co., 1949), pp. 140-141.

Parents frequently make the mistake of trying to foster social maturity in their child by parading adult problems, adult uncertainties, and adult disillusionments continually before him—doubts concerning food and shelter, financial worries, adult social strivings, and parental discords that divide his loyalties and threaten the fundamental security of his home.[10]

This kind of home situation demands that the teacher be sufficiently sensitive to recognize that insecure parents may be a source of insecurity in children, who by contagion suffer from the unmet needs of father or mother.

AVOIDING THE USE OF CHILDREN AS VEHICLES FOR ADULT AMBITIONS. Few persons achieve all that they wish to attain. As a result, they sometimes seek to realize through their children some of the goals and ambitions originally coveted for themselves. Only rarely will the child in such a predicament live up to inflated parental aspirations. More often he will feel that he is a disappointment to the adults who have "done everything for him"—except to give him the sympathetic understanding required for a sense of security. Artful diplomacy in parent relations is needed to meet this kind of home situation when it blocks the school's efforts to help a child progress toward appropriate developmental goals.

DECREASING IRRATIONAL PRESSURE FOR ACHIEVEMENT. Pressure placed upon children to force them to exceed their ability at a given time is frequently found when parents are ambitious. A teacher was telling her eighth-grade group about her Austrian cousin who worked in a Parisian restaurant. "Gee," one boy said, "isn't he even a *head*-waiter?" This chance exclamation reveals the constant pressure to be top man that is applied to tens of thousands of children whose parents feel that the family genes and chromosomes somehow are impugned if *their* child is not above the achievement median. Ironically, the very end such parents seek may be defeated as pressures for attainment breed personality problems that cause boys and girls to do even less well than they are capable of doing. In these circumstances, the patterns of growth that slow-learning children follow must be made clear to adults who overvalue bookish achievement. They must be helped by the school to see the dangers present in parental attitudes of disapproval or rejection, when a child is doing his best but fails to meet the family's expectations.

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[10] Norman Cameron, *The Psychology of Behavior Disorders* (Boston: Houghton Mifflin Co., 1948), p. 268.

PREVENTING UNREASONABLE GUILT FEELINGS. It is normal for children to get into mischief. With understanding parents and teachers the difficulty generally proves transient. Serious trouble may arise, however, when children are subjected to adult moral standards that they are too young to comprehend. A four-year-old, chided by a strict parent for pretending to iron doll clothes on a Sunday, retorted, "But, Daddy, God knows the iron isn't hot!" Unfortunately, all youngsters are not so resilient. They need to be guarded against the old-fashioned moralizing which distorts personality by its emphasis upon the evil that will befall "wicked" children who fail to observe all the amenities of conduct demanded by the grownup.

GUARDING CHILDREN FROM OVERPROTECTION. A final matter bearing on the school's relationship to home situations that interfere with wholesome, consistent pupil progress is that of protecting children from well-intentioned overprotection. No normal human wants to see a child harmed, but an overprotective parental concern can create insecurity and foster a timidity as harmful as the imagined dangers that the oversolicitous parent seeks to avoid. Schools not only need to educate these parents to the trouble they are storing up for children; they also need to create safe, controlled situations in which groundless fears can be faced and overcome.

AN EVALUATIVE CHECKLIST FOR PARENTS. As teachers endeavor to sensitize parents to their role in developing sound personal-social values in children, they may find it helpful to use the following informal checklist. It is an evaluative tool that can be used either in individual conferences or at P.T.A. meetings.

PARENTS, HOW IS YOUR "P. Q." (PARENT QUOTIENT)?[11]

> As parents and teachers we share the important job of helping your child succeed in school. Here is an informal "P. Q." test designed to assist you to "check up" on the many small but important things you can do to send him to school as a happy, secure person, and to understand our school. Score 5 points for each "Yes" answer. The passing grade is 75, but it takes only a little homework in this subject to reach 100.

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[11] Adapted from Harold G. Shane, "To Help Your Child Succeed in School," *Collier's*, 138:40-42 (Sept. 28, 1956). (Permission to reproduce the "P.Q." quiz is granted if original source and author are acknowledged.)

TEST YOUR PARENT QUOTIENT

1. Do you avoid putting premature and unreasonable pressure for school achievement on your child? YES NO
2. Is your vocabulary consistently one you are willing to have your child pick up? YES NO
3. Do you deliberately use words and talk about subjects designed to expand your child's general knowledge at his age level? YES NO
4. Do you protect your child from your own fears, insecurities, tensions and problems by exercising good judgment in what you discuss in his presence? YES NO
5. Have you averaged at least two visits to school each year and stayed in the classroom for one hour or longer? (P.T.A. meetings are helpful, but don't count them here.) YES NO
6. Do you avoid being overprotective and give your child a chance to show what he can do by himself with only normal cautions from you? YES NO
7. Can you say that you avoid the expressions of personal prejudice which children absorb from adults? YES NO
8. Have you made a reasonable effort to determine why schools teach the way they do today, rather than as you were taught in the 1920's and 1930's? YES NO
9. Have you taken time to read up on, or otherwise learn, what to expect as "normal behavior" from a child the age of yours? YES NO
10. Do you, in talking with other adults, avoid blaming the school for not teaching your child such things as good manners, which are primarily the parents' responsibility? YES NO
11. Have you conferred with the teacher at least once a year to learn what you can do to carry a fair portion of the responsibility which home and school share in child-rearing? YES NO
12. Do you take time to do things *with* your child rather than merely to do things *for* him? YES NO
13. Do you recognize that your child largely learns his standards of behavior from you, and therefore do you try to show him the courtesy and respect you seek from him? YES NO
14. Do you normally take time at least once a day to do some little thing to have fun with your child, and to reassure him that you love him? YES NO
15. Do you explain to your child why you expect him to do—and not to do—certain things, rather than expect him to "behave" because you say so? YES NO
16. Are the standards of conduct you set for your child suitable to his age and to his understanding? YES NO
17. Are you consistent in your demands for behavior rather than too easy one time and too severe the next? YES NO

18. When it is needed, is the punishment you mete out firm rather than harsh? YES NO
19. Do you help your child find a good sense of direction by example rather than by what you tell him to do? YES NO
20. Are you able to say that you avoid exploiting your child as a vehicle for ambitions you have never been able to realize yourself? YES NO

As a teacher, you may also find the points on the "P. Q." test a source of helpful, down-to-earth suggestions upon which to draw in counseling parents who want to know ways of contributing to a stronger home-school bond.

■ Summary

Thus far an attempt has been made to identify values that should help elementary school workers to make a mature evaluation of the program provided for children in American public education. First, some of the problems in communicating ideas were presented, such as language barriers. Then nine citizenship goals that embody socially desirable qualities or values to be sought with children were presented and examined. The important role of parents, as well as teachers, in guiding the progress children make toward maturity was emphasized at the close of the chapter.

The writers recognize and willingly concede that, in the course of appraising an educational program, the local staff must decide upon its own values and translate them into goals or desired citizenship outcomes. In view of this concession, the present chapter should be looked upon not as a ready-made source of direction for evaluators, nor as a master plan, but as a starting point, a point from which school workers and other citizens can begin to create citizenship goals uniquely suited to *their* purposes and values in striving for a strong and healthy American democracy. If some of the value-goals prove acceptable, so much the better, since the writers believe they are defensible and practical; but they are not deemed to be absolutes.

In Chapter 3, as a next step, consideration is given to the evaluative process itself, and to the ways in which it can contribute to the clarification and attainment of educational objectives that justify the increased support of citizens, both financial and personal, during the critical years that lie ahead.

Discussion Questions and Suggested Activities

1. What are some practical methods or procedures for building desirable citizenship values in children in the classroom? How do these methods vary from one grade level to another?

2. What are some ways of strengthening *teacher-parent* relationships? How can *school-parent* relationships be improved?

3. What are some problem situations in the home that may directly concern the school?

4. List some of the words or terms in education that you would class as pedaguese (for example, *ungraded primary, auding, integrate,* or *core curriculum*). Discuss your interpretations of these terms. Take note of any confusion or disagreement as to meaning. How might differing interpretations of terminology affect curriculum evaluation?

5. If feasible, invite a seasoned guidance counselor or social worker to the classroom to discuss with you some of his diagnoses of and procedures for dealing with the problems confronting children in home and school.

Selected and Annotated Readings

1. American Council on Education, *Helping Teachers Understand Children.* Washington, D.C.: The American Council on Education, 1945.

   After a number of years, this book remains an important and practical source of information on how to understand the child. Useful as a faculty in-service education study guide.

2. Buhler, Charlotte, *et al., Childhood Problems and the Teacher.* New York: Henry Holt & Co., 1952.

   One of those relatively rare books that get right down to brass tacks with respect to specific ways in which the teacher can help children develop into more effective human beings. Treats both recognition and remediation of childhood problems through the use of real examples.

3. Kelley, Earl C., and Marie I. Rasey, *Education and the Nature of Man.* New York: Harper & Bros., 1952.

   A brief and exceptionally well-written presentation of ideas and concepts that help the teacher to see his work in suitable perspective. Deals with the nature of the human organism and what its qualities suggest for teaching and learning.

4. Rasey, Marie I., and J. W. Menge, *What We Learn from Children.* New York: Harper & Bros., 1956.

   Excellent, and often delightful, word pictures of how children learn and grow are a feature of this slim volume. Provides much information on guiding the development and values of boys and girls.

3

The Evaluative Process: Its Nature and Function in Improving the Elementary Curriculum

EVALUATIVE procedures are relatively new tools in the educational storehouse. As recently as 25 years ago, appraisal techniques were highly experimental, and the handful of persons developing them were pioneering in virgin territory.[1] During the late 1930's and especially since 1940, the term gained wide currency. Despite the frequency with which it is used, or perhaps *because* of its popularity, the word evaluation has failed to acquire a clear-cut single meaning among many members of the teaching profession.

Originally, the primitive or limited procedures that were devised represented a reaction against the restricting effect created by conventional testing and measurement. Certain educators rebelled against the values that were violated by the mechanistic administration of achievement-test batteries and sought to examine attitudes, opinions, the *uses* made of skills, and similar elements with which subject-matter tests were not directly concerned. In time, most people came to realize that progress in curriculum development could not be measured solely by the answers that children, when examined, were able to produce. Their success in achieving was so varied that a more comprehensive approach was in order. While this interpretation has persisted and grown stronger down to the present time, other concepts, too, have flourished. One result is the need for an examination of various meanings associated with evaluation.

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[1] See Appendix A for a more detailed statement of the development of evaluative techniques and procedures since 1930.

▪ The Nature of Evaluation

FIVE INTERPRETATIONS OF EVALUATION. The wide range of meanings associated with evaluation by 1950 was highlighted by a survey of projects that educators considered to be evaluative in nature.[2] Some 200 selected respondents contributed comments, instruments, and miscellaneous printed materials revealing at least five distinct and different concepts that had found acceptance. Since the primary purpose and function of language is to convey meaning, we need to take a close look at this interesting semantic snarl. What do professional educators mean when they use the word *evaluation?* Is there a "true" definition of *evaluation* among (or other than) those now in general use? As was pointed out in Chapter 2, it is well to remember that the beginning of wisdom is found in calling things by their right names. If the elementary school is to be improved appreciably by evaluation, there is wisdom in making clear the status of the process under discussion.

Evaluation as the application of value to a problem. The most simple meaning ascribed to evaluation is that of applying individual or group values to a problem. Usually this involves: (1) the recognition of a problem in a school situation or at the state-wide level, such as inadequate reporting, obsolete curriculums, unsatisfactory record forms, or objectives that seem outmoded; (2) the development of simple criteria; and (3) changes in practices as the criteria demand. Representative of this meaning ascribed to evaluation are checklists and publications, such as Pasadena's *Criteria for Evaluating Books, Pamphlets and Periodicals, Criteria for Evaluation of Globes and Maps,* and *Score Card for Evaluating Spelling Textbooks* distributed by the schools of that city in 1948 and 1949.

Local school district and state department of education curriculum handbooks often follow this simple three-point pattern. In the last five years, literally dozens of such publications have appeared.[3] By and large, careful thought has gone into their preparation. However, since much of the worth of an analysis and appraisal of educational problems accrues to the persons actually doing the work, this approach to evaluation is limited by the number of individuals who can participate.

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[2] Harold G. Shane, "A 1950 Census of Evaluation Practices," *Educational Leadership,* 8:73-76 (November, 1950).

Evaluation as a synonym for measurement. A large number of educators continue to regard evaluation as a synonym or euphemism for a testing program. This is borne out by the number of school systems that refer to the use of standardized tests as their "evaluation program," by the number of recent textbooks concerned with measurement that feature "evaluation" in their titles or subtitles, and by chapters on "evaluation" in textbooks dealing with the curriculum or special fields. The *Guide to a Functional Program of Evaluation in the San Francisco Elementary Schools,* published in 1949, is an example of the tendency to associate testing with evaluation. At the same time, a growing minority of writers are pleading for broader concepts of appraisal, pointing out that testing programs are tools for *use in evaluation* rather than the actual process of appraisal.

Evaluation as a label for processes used in gauging teacher competence. As teachers' salaries have increased during the past decade, a growing pressure has been exerted upon schools to evolve some type of rating scheme for ascertaining instructional ability. As a result, a great variety of devices for determining merit have developed. These range from rating scales involving checklists to elaborate anecdotal observation forms. The process of judging a teacher's work is often referred to as "evaluation," perhaps partly as a means of avoiding the objectionable connotations of the word *rating*. Administrators' rating scales, professional knowledge tests, self-rating scales, assorted record forms, and even analysis sheets for use by older pupils in estimating the success of their instructors are now available.[4]

The narrowing of evaluation to such a specific activity as teacher rating is an unfortunate use of the term, but one that must be recognized nonetheless because of its prevalence.

Evaluation as the appraisal of curriculum practices and educational resources. A fourth widespread interpretation of evaluation is associated with curriculum appraisal. This category often includes printed devices that are inventories of resources, both human and material, needed to implement a desirable program. In the field of elementary education, a considerable number of the instruments[5] created for this purpose evidently were influenced by the comprehensive *Evaluative Criteria,* originally drafted for the Cooperative Study of Secondary School Standards in the late 1930's and recently revised.[6] Several carefully prepared and detailed devices of educational interest have become available for elementary school use in the recent past. These include Mort, Vincent, and Newell's *The Growing Edge,* Wilson and Otto's *Handbook for Self-appraisal and Improvement of Elementary Schools,* and the *Elementary Evaluative Criteria* completed in 1949 by the Southern Association's Cooperative Study in Elementary Education. Such publications leave no doubt as to the wide acceptance of evaluation construed to mean appraisal of the over-all educational program. They are listed and annotated in Appendix C.

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[3] See Appendix C for an annotated bibliographic listing of evaluation devices, related materials, and books and articles on the subject.

[4] See Appendix C.

Self-evaluation was particularly emphasized in the 1950's. Two distinguished self-appraisal tools are the *Elementary Evaluative Criteria* booklet produced in 1953 by Boston University and *Self-evaluation of Elementary Schools in Colorado* distributed by the Colorado State Department of Education in 1956. Both devices provide excellent means for surveying the over-all status of purposes, school plant, personnel, curriculum, and instructional resources.

Evaluation as concerned with the study of changes in children's behavior. Assorted efforts to record and study children's behavior provide a fifth interpretation of evaluation. Sociometric devices, problem checklists, behavior journals, and performance records are among the devices obtainable by the teacher seeking to engage in this kind of study, and whole batteries are available. An example of these publications is the "Ohio Guidance Tests for Elementary Grades," which include thinking check-ups, interest inventories, and social acceptance scales.

In view of the range and diversity of the several interpretations listed above, one may well be bewildered by the concept of evaluation. The confusion can be dissipated, however, if it is examined in the light of adequate definitions and comments that are available today.

HOW SHALL WE DEFINE EVALUATION? The educational profession is indebted to Smith and Tyler for an early definition of *evaluation*. In their report of the activities of the evaluation staff of the Eight-Year Study, they state that evaluation ". . . implies a process by which the values of an enterprise are ascertained."[7]

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[5] See Appendix C.

[6] The Cooperative Study of Secondary School Standards, *Evaluative Criteria: 1950 Edition* (Washington, D. C.: The Cooperative Study, 1950).

Recognizing some of the divergent views of the evaluation process and the need for clarification, Alexander and Saylor note that:

> The traditional evaluative activity . . . consists of pencil and paper tests. A more adequate concept of evaluation includes all the activities whereby an individual or group determines how well agreed-on purposes have been achieved.[8]

Quillen and Hanna broaden the two preceding statements when they speak of evaluation as ". . . the process of gathering and interpreting evidence on changes in the behavior of students as they progress through school."[9] Writing at greater length, Burr, Harding, and Jacobs prepared the following:

> The process of determining the extent to which values are achieved, purposes carried out, and goals reached is evaluation. The term is derived from the word "value," since the appraisal of the effectiveness of educative experience should be based upon a consistent, sound, democratic system of values. Evaluation includes analysis of the purposes themselves and consideration of the techniques by which goals are attained, as well as the degree of achievement. To say it in other words, one asks: Is this good? Are we working at it in an intelligent manner? Are we getting the job done?[10]

Each of these statements helps to sharpen the meaning of the term and to provide a foundation for deciding what seems to comprise a "true" definition. Wrightstone, a pioneer and authority in appraisal practices, writes:

> Evaluation is a relatively new technical term, introduced to designate a more comprehensive concept of measurement than is implied in conventional tests and examinations. Distinction may be made between measurement and evaluation by indicating that the emphasis in measurement is upon single aspects of subject-matter achievement or specific skills and abilities, but that the emphasis in evaluation is upon broad personality

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[7] E. R. Smith and Ralph W. Tyler, *Appraising and Recording Student Progress* (New York: Harper & Bros., 1942), p. 5.

[8] William M. Alexander and J. Galen Saylor, *Secondary Education* (New York: Rinehart & Co., 1950), p. 442.

[9] I. James Quillen and Lavone A. Hanna, *Education for Social Competence* (Chicago: Scott, Foresman & Co., 1948), p. 343.

[10] James B. Burr, Lowry W. Harding, and Leland B. Jacobs, *Student Teaching in the Elementary School* (New York: Appleton-Century-Crofts, 1950), p. 183.

changes and major objectives of an educational program. These include not only subject-matter achievement but also attitudes, interests, ideals, ways of thinking, work habits, and personal and social adaptability.[11]

On the basis of the foregoing thoughtful and carefully phrased statements, one can reasonably conclude that evaluation is not limited to the application of value to a problem. Neither is it merely a synonym for measurement, a means of gauging good teaching, a way of appraising curriculum practices, or a procedure in studying human behavior. Rather, evaluation is a comprehensive process of which any or all of these variations may be components.

Any interpretation or definition of evaluation should direct attention to two interdependent concepts. The first is *externalized* evaluation: a process that can be seen and described. The second, and more subtle, is *internalized* evaluation: the appraisals that children and adults make within themselves and that both guide their thinking and direct their action. Let us examine each of these deeply significant interpretations.

Definition of externalized evaluation. Externalized evaluation is a process whereby a group of citizens and teachers may gauge the success with which the school is achieving its purposes. The following is a technical definition: *Evaluation in elementary education is a continuous process of inquiry, based upon criteria cooperatively developed in the school-community, which leads to warranted conclusions with respect to how successfully the school is studying, interpreting, and guiding socially desirable changes in human behavior.* By its inherent nature, this process establishes the conditions that warrant the conclusions reached regarding the nature of socially desirable behavioral changes. The eight steps in the evaluative process described below, the subsequent discussion of its characteristics, and the 12 specific functions of evaluation (see pp. 67-68) are designed to lend additional meaning to this definition.

Interpretation of internalized evaluation. In addition to understanding the conventional concept of evaluation as a group appraisal process, the evaluator must be aware of the fact that evaluation is (in a *real* but *intangible* sense) something that goes on under the skin of adults and children alike. *This internalized evaluation is a process within us, as a result of which we make our interpretations of the environment about us and, accordingly, direct our behavior.* The sensitive teacher recognizes that children evaluate *him* and the environment that he and other adults create, in and out of school, as they seek to guide each child's behavior so that it becomes increasingly congruent with the objectives sought by the school.

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[11] J. Wayne Wrightstone, "Evaluation," *Encyclopedia of Educational Research* (New York: The Macmillan Co., 1950), p. 403.

The evaluator must also realize that the ultimate test of the success of the externalized evaluative process is the degree to which it motivates the child to create *within himself* those personal goals that are similar to those established by the school. In other words, the goal of *externalized* evaluation can be realized only if the *internal* wellsprings of child behavior actually are changed by the evaluative process. This makes it mandatory for the school to take into account, and, if possible, give direction to, the psychologically "private world" in which the child has his inner being.

Since teachers and others active in appraisal are seeking to realize values that they say they accept, the achievement of such values must steadily alter the school environment so that sought goals are continually emerging. To an equal extent, the worth of the evaluative process is measured by the teachers' success in "getting beneath the skins" of children and causing changes in the behavior that motivates them to recognize and ultimately accept the merit of the school's purposes.[12]

APPLYING THE STEPS IN EVALUATION. The steps followed in the evaluative process are, essentially, a way of applying common sense in order to realize citizenship outcomes for which the school seeks to find expression in the observable behavior of children. They are as follows:

(1) Isolation and description of the problem(s) to be studied;
(2) Clarification of values bearing on the problem(s);
(3) Development of criteria for study of the problem(s);
(4) Expression of the criteria in terms of the behavior sought in children;
(5) Establishment of situations in which children's behavior can be studied as the school seeks to modify it to conform with desired citizenship outcomes;
(6) Employment of instruments to gather behavioral data to be

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[12] For a discussion of internal or intrinsic evaluation by children, see E. T. McSwain, "Evaluation Practices in the Elementary School," *Redirecting Education: Thirty-fifth Annual Schoolmen's Week Proceedings* (Philadelphia: University of Pennsylvania, 1948), pp. 110-117.

studied in order to decide whether or not children's behavior is being changed significantly;

(7) Analysis of behavioral changes, if significant, to determine whether or not these changes are compatible with the values sought by the school; and

(8) Implementation of decisions reached in view of the findings made by the school staff.

For practical purposes, human nature and conduct are capable of infinite improvement. As a consequence, upon the completion of the eighth step, the evaluative process is continued, beginning afresh with the first step, which differs only insofar as the nature of new challenges differ from those that have in full or in part been met through previous staff interaction and action.

In Chapter 4, some of the problems to be met in evolving and phrasing statements of values to be achieved will be discussed at length. In Chapter 5, meaning will be given the steps in evaluation through the use of examples that detail ways in which the process might be carried out by a local school staff. However, before considering an actual approach to a proposed problem—clarifying values, suggesting criteria, and expressing them in terms of child behavior—we will find it useful to develop at greater length some characteristics and functions of evaluation and to touch briefly upon the uses to which evaluation is being put in current practice.

■ Some Characteristics of Evaluation

Definitions alone do not clarify concepts. For anyone who has not actually seen an elephant, there is little meaning in the definition, "Any of certain thickset, mostly huge, nearly hairless, four-footed mammals, having the snout prolonged into a muscular proboscis, or *trunk,* and two incisors in the upper jaw developed especially in the male, into long tusks, which furnish ivory."

How big is "huge"? How long is the "muscular proboscis"? What is "ivory"? The six blind men of Hindustan doubtless did little worse than would the uninitiated person who, never having experienced a pachyderm, might try to visualize one from the description given by Webster's.

The job of endowing an abstract noun, such as evaluation, with anything approximating real meaning is even more of an elephantine task. In approaching this problem, the authors will describe evaluation more explicitly than even the sharpest of definitions permits.

EVALUATION IS AN INCLUSIVE PROCESS. All available means of gathering pertinent data bearing on changes in the behavior of children may be used in the appraisal process. Sources of information or means of obtaining it include such items as the following, which are discussed in detail in Chapter 6:

achievement tests
intelligence tests
adjustment indices
interviews
rating scales
activity records
sociometric devices
recordings
films
children's letters
creative writing
diaries
projective techniques
parent conferences

The evaluator should use every resource within the limits of his creativeness to obtain evidence of the extent to which he is stimulating desired changes.

EACH SITUATION IN WHICH EVALUATION OCCURS IS UNIQUE. Practicing school workers know that groups of children with whom they work may differ radically from year to year. Some children know how to plan beautifully, others may seem maddeningly inert; some have highly developed purposes and a keen sense of responsibility, others appear disjointed and pose many challenges to the teacher seeking to develop social controls and self-direction. Even in school districts with relatively homogeneous populations, school groups vary dramatically in intelligence, emotional maturity, and related qualities that condition the nature and extent of the experiences planned. Differences within groups of children are likely to be even greater than differences among groups.

These wide ranges make evident the point that evaluative procedures are unique in each situation. In striving to guide desirable changes in the psychological behavior of children and in deciding the particular ways in which values are to be sought and the priorities to be assigned to them, the teacher must begin with the background peculiar to each group. Physical needs may rank high on the list in one school, improvement of human relations in another. It should be reiterated that values themselves will be similar, since the democratic tradition is their common denominator, but that democratic goals are approached in terms of an analysis of the children's status with regard to these goals.

Physical well-being, equality of educational opportunity, useful skills and knowledge, socio-economic literacy, and other outcomes essential to effective citizenship in America, as proposed in Chapter 2, are vital to all children. Differences among school situations, which serve to make each unique, shape the processs through which they are pursued. This intimates that evaluation, concerned as it is with individual and group behavior changes in a unique situation, is concerned only indirectly with standards or norms gathered in a given school or from among several schools. Standardized tests may be used in appraisal, but what they reveal cannot be accepted as being to a school's credit or discredit, except insofar as the findings are qualified in view of the sought values and outcomes established by a study of the status and needs of the particular group of children involved.

EVALUATION IS A CONTINUOUS PROCESS. The evaluator must learn early that there is no "final" goal to which he may look and upon the attainment of which his work is completed. Evaluation is a continuous process rather than a product because human beings are capable of infinite improvement. L. Thomas Hopkins[13] pointed out some years ago that the democratic process is interactive. Since, in the United States, the school's value-source is democratic, the circular response (created as one personality interacts with another in evaluating) continues *ad infinitum*. Each person participating in the process of improving individual and group behavior is himself altered and, it is to be hoped, moves one step closer to democratically desirable behavior.

The process values of evaluation should not be underestimated. Through them the day-by-day improvement of teacher and children is fostered. Any "partial products" that are obtained are important, but only as reassuring evidence of progress toward ultimates that are never fully attained. Succinctly, some form of evaluation is inherent in teaching, learning, and in living; but evaluation is incapable of producing a "final" result because it is concerned with behavior, and behavior is, in turn, continually emerging, altering, and finding redirection.

EVALUATION IS A USEFUL MEANS TO THE STUDY OF INTANGIBLES AS WELL AS OVERT BEHAVIOR. One of the important characteristics of evaluation is the light it sheds on the "immeasurables" of conduct. Thanks to Tyler, Wrightstone, and other innovators, modern appraisal procedures concern themselves with attitudes, insights, and understandings as well as with the skills and knowledge of subject content. For a long time, educators have been concerned not only with what information children were acquiring in school but with their attitudes toward this information, toward teachers, other children, and the total environment in which they were growing up. Admittedly the concomitant learnings are important, but how to gauge them? How are we to tell whether a child with a flair for arithmetic will use his ability well, or whether in later life his attitudes will lead him to skillful but fraudulent bookkeeping?

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[13] L. Thomas Hopkins, *Interaction: The Democratic Process* (Boston: D. C. Heath & Co., 1941).

Studies of the intangibles of personality, of situations, of group and personal relationships open up wide possibilities for better guidance of individual adjustment.

EVALUATION IS CONCERNED WITH TOTAL SITUATIONS. Even at the risk of redundancy, we must include specific mention of evaluation's concern with wholes. In-school and out-of-school activities, family living, personal health—all are of one piece in their effect upon the child, all are parts of the matrix in which he grows. Sound evaluative procedures and processes do not disintegrate this totality of experience. Related qualities and elements are studied together.

EVALUATION IS A GROUP ENDEAVOR. All persons involved in examining and improving behavior participate in evaluation. This must be accepted because behavior in a democratic school is a derivative of interaction and is directed through it. Further, evaluation operates in a context of human values—values which, if they are to be realized, require cooperative group action because this cooperation is in itself one of the values desired.

In general usage, group endeavor in evaluation is quite often restricted to teacher-pupil purposing, planning, and executing. In some instances, however, the role of the whole staff is seen in proper perspective, and the unit is viewed as encompassing children, classroom teachers, administrators, supervisors, and consultants working together toward common behavioral goals accepted by all. Also, for the overwhelming majority of schools, it is important that progress be made toward the goal of having the nonteaching staff—parents, citizens in general, and community groups—share in the direction of the evaluative program.

EVALUATION IS NOT NEUTRAL. Contrary to misconceptions current in certain quarters, evaluation is not a neutral process. It is biased by the evaluator's values that determine the nature of behavioral goals or citizenship outcomes, the progress toward which one measures with appraisal techniques. The confusion regarding neutrality probably stems from the fact that some instruments used in connection with appraisal are "neutral" while the values of the *persons* making evaluations determine whether results shown or conditions discovered are judged to be good or in need of improvement. Dependent as it is upon expressed values, the evaluative process contains many subjective elements. Only when confused with narrow interpretations of evaluation, such as objective testing, can appraisal be said to be impartial. When this is the case, the real meaning of evaluation is lost and the door is opened to undesirable situations in which the individuality of children is forgotten.

SOUGHT VALUES DETERMINE OUTCOMES IN EVALUATION. Consonant with the bias of evaluation is the characteristic that basic values sought by the evaluator determine both the nature of the procedures used and the emerging outcomes of the process. This is sufficiently congruous to require no elaboration here, and the next chapter is given over to the complicated problem of values, their sources, and the difficulties in reaching agreement upon them.

EVALUATION IS A CONTRIBUTING FACTOR IN THE RATIONAL SOLUTION OF PERSISTENT EDUCATIONAL PROBLEMS. When properly developed, the evaluative process aids greatly in the efforts of school and community to solve educational problems of great variety. Evaluation is sufficiently versatile to serve a broad range of need. Boards of education, for example, have made good use of appraisal in planning new buildings by studying the relationship between the construction of a school plant and the potential influence of room arrangement and facilities upon children's experiences. The process has been used in revising salary schedules and planning teacher-retirement programs. Application of evaluation to resolving curriculum problems is finding increasing acceptance.

EVALUATION CLARIFIES GOALS FOR EDUCATION. By its emphasis on values, evaluation contributes to the clarification of goals for education. Teachers and children cannot consciously appraise their work without developing greater awareness of the reasons for the actions they take. Consequently, objectives become better understood and more acceptable. A growing sense of purpose and a clearer sense of direction are vitalizing qualities, making evaluation particularly important in daily school living.

Although evaluation is not necessarily simple, the process need not be complex as carried out in the classroom. Beginning with their first days in school, even five- or six-year-olds can be introduced to evaluation, and *should* be introduced to it. Simple value-judgments become evaluative as teacher and children reach decisions in terms of criteria. This may take the form of sharing toys fairly, of reaching decisions regarding toilet room procedures, and a thousand-and-one similar choices that the imaginative teacher can help children to make on a rational basis, and which he utilizes in studying and guiding desirable behavioral change. Applications of evaluation extend from such informal classroom situations to the tremendous complexity of the work of the evaluation staff of the Eight-Year Study. (See Appendix A.)

▪ Twelve Specific Functions of Evaluation in Improving Elementary Education

A number of important functions or tasks that the evaluative process performs in elementary education can be inferred from the foregoing description. The 12 functions listed below point to ways in which the elementary school can be improved.

(1) One function of evaluation is to focus the teacher's attention upon developmental changes in children as he studies their behavior and its meanings.

(2) Another function of evaluation is to familiarize the teacher with the tools and techniques used in studying and analyzing the nature and causes of behavioral changes.

(3) A third function, when the evaluative process is properly used, is to sensitize teachers both to the subtleties and the importance of interaction. (It may be added parenthetically that this is obvious, because evaluation requires the interaction of participants.)

(4) It follows that the process increases skill in interaction as the evaluator works with others.

(5) Evaluation broadens the teacher's awareness of the child in a total environmental situation. The same kind of awareness develops in parents and other persons involved. This provides yet another reason for urging that all persons concerned with elementary educa-

tion share in directing it through appraisal procedures that establish goals and check on progress toward them.

(6) A sixth specific function follows from the fifth. By its involvement with value-analysis—the study of the values accepted as good in education, and acceptance of their implications for practice—evaluation suggests and clarifies goals for the school and ways in which they can be captured successfully.

(7) Evaluation, as a continuous process, demands constant curriculum improvement which is in step with changing times, thus lessening the frequently cited lag between social change and the school program.

(8) Another function of evaluation is to provide a basis for gauging the growth of children without primary emphasis upon academic achievement alone.

(9) A ninth function of evaluation is to promote individualized classroom instruction. This results from the teacher's increasing awareness of the child's individual nature and needs suggested in (8) above.

(10) Evaluation improves public relations because its processes involve parents and other members of the community. Cooperatively evolved programs based upon commonly accepted values often enjoy the support of the community to the extent that its members have shared in the valuing, planning, and executing that is entailed.

(11) The evaluative process provides a high type of on-the-job education. Teachers cannot evaluate without growing personally and professionally in the process.

(12) Finally, the twelfth function of evaluation is to strengthen democracy because evaluation is dependent on the use of democratic procedures for its successful fulfillment.

■ Action Research in Relation to the Evaluative Process

Few descriptive terms in education have been so quickly adopted or so widely circulated as *action research*. Virtually unknown before 1950, *action research* became a part of standard pedaguese in the past decade.

Because of the extensive usage of the term, because its meaning is not universally understood, and because it is so closely linked to the evaluative process, it seems desirable to make clear this relationship of action research to the evaluative process.

According to Foshay and Wann, writing in 1954, "Action research may be defined as research undertaken at the action level to improve practices."[14] They go on to state that action research "is characterized by a design which evolves as the process moves forward and in which intermediate results influence the unfolding design as much as does the original purpose."[15]

The nature of action research as a procedure comparable to the evaluative process is even more evident from a description of the steps in conducting an action-research project as set forth by Hunnicutt, who describes action research as follows:

> The major characteristics of action-research programs may be summarized briefly: (1) a group need to study a problem is recognized; (2) the members of the group share in planning the design and procedures of the study; (3) they select or construct research instruments and techniques; (4) they participate in collecting data; (5) they collaborate in analyzing and interpreting the data; and (6) they cooperate in the applying of findings in practical situations.[16]

The striking resemblance or parallel between evaluation and action research is also evident in writings of Lippitt and Radke,[17] Mary Beauchamp,[18] and Corey.[19] Corey, for example, asserts that the minimum essentials of action-research design include: (1) the statement of an hypothesis or prediction which implies a goal and a procedure for reaching the goal, (2) a determination of the relation of the specific goal to a larger total goal, (3) a description of the goal so that some sort of evidence as to the degree to which it has been achieved can be determined, (4) a description of the procedure to be employed so that another person will know the action to be taken, (5) provision for collecting evidence describing the goal situation before and after the designated procedure has been applied, and

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[14] Arthur W. Foshay and Kenneth D. Wann, *Children's Social Values: An Action Research Study* (New York: Bureau of Publications, Teachers College, Columbia University, 1954), p. 55.

[15] *Loc. cit.*

[16] C. W. Hunnicutt, "Action-Research for Public Schools," *Educational Leadership*, 7:279, January, 1950. (Article appears in a Department of the magazine edited by Dr. Hunnicutt and was contributed by J. Wayne Wrightstone.)

[17] See *The Annals of the American Academy of Political and Social Science*, pp. 171-175 (March, 1956).

[18] Mary Beauchamp, "Techniques of an In-Service Training Program," *Educational Leadership*, 7:281, January, 1950.

[19] Stephen M. Corey, "Curriculum Development Through Action Research," *Educational Leadership*, 7:149, December, 1949.

(6) the formulation of generalizations regarding the relationship between the practice or action and the desired goal.[20]

At the same time, the patent kinship of action research, evolving in the 1940's and 1950's, to the evaluative process as pioneered by such persons as Louis Raths, Ralph Tyler, and others in the 1930's,[21] in no way minimizes the original and significant evolution reflected in attempts to improve educational practice through action research. *Evaluation* has been a term with many interpretations; action research has clarified and emphasized the *cooperative action* and *process* dimensions of the evaluative process. Also, action research has scored considerable success in divorcing the concept of evaluation from its relationship to testing and measurement *per se,* with which some educators have associated it. Finally, the able and vigorous proponents of action research had, by the 1950's, made an impact on the process of *local, cooperative program improvement,* which the early pioneers in applying evaluative procedures had not achieved to a comparably *widespread* degree.

Whether one labels local curriculum study *evaluation* or *action research,* the spirit of cooperative interaction, of appraisal, of mutual respect, and of applied intelligence must characterize either process if it is to improve the educational experiences of teachers and children.

▪ Evaluation in Action

The nature and function of evaluation can be understood even more fully if attention is directed to some current examples of evaluation in action in American education. In all probability, no better way can be devised to show the versatility with which evaluation has been used to improve the quality of elementary education. The 20-odd current or recent projects and endeavors selected for discussion here offer definite evidence that evaluation is acquiring momentum.[22] Not all the examples embody direct efforts to study and guide socially desirable changes in children's behavior, but, to some extent, all are means to this end and, therefore, are compatible with the spirit if not the letter of the definition of evaluation given earlier. Readers will also be aware that there is some overlapping among the categories used, an encroachment that is impossible to avoid.

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[20] *Ibid.,* p. 152.

[21] See Appendix A, which treats the historical evolution of evaluation.

[22] In addition to mention in footnotes given here, a number of the following publications are annotated and incorporated in the more comprehensive bibliography of evaluation instruments and related materials presented in Appendix C.

EVALUATION IN ACTION IN LOCAL SCHOOL DISTRICTS. The local school district is where evaluative procedures have been most widely used—although they are not always labeled as such, and local activities frequently are not publicized beyond the immediate environs of the school. Such efforts in individual schools are especially significant, since they are indicative of the effect the evaluative approach has had on the roots of public education.

The schools of Winnetka, Illinois, based two years (1946-1948) of work in curriculum revision upon an analysis of behavior to be sought in children and developmental characteristics of boys and girls which suggested changes in practices. In neighboring Glencoe, a continuing program of evaluation has been active, especially during the summer months of Glencoe's extended school year, which attracted wide attention when introduced in 1948.

The Euclid, Ohio, public schools provided an unusual example of applied appraisal activities when the staff, in cooperation with Louis Raths of The Ohio State University, developed evaluative tools approximately 20 years ago. In the same state, the Lakewood schools completed a three-year evaluative study aimed at the redirection and improvement of practices from kindergarten through grade 12.

An experiment in narrowing the gap sometimes found between values and practice was established in the University City, Missouri, schools under the direction of Julius Warren who was the superintendent in 1949-1950. Teachers, after studying intensively the children coming into their groups, evaluated the programs they developed during the year in a spring report submitted to the superintendent. This report also served in lieu of teacher-rating scales frequently employed elsewhere. Another approach to appraising effective teaching, and thereby improving practice, was begun in the Richland, Washington, public schools during the same year, and in initial stages took the form of painstaking staff study of factors determining competency in the classroom.

Group work by the staff of the Warner School in Nashville, Tennessee, produced in 1949 a locally developed statement of values, a plan for evaluating pupil progress, and a device for self-evaluation built around eight facets of school life, such as democratic practices and community relations.[23]

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[23] Warner School Staff, "Criteria for Teacher-Evaluation and Improvement of Theories and Practices of Warner School" (Nashville: The Warner School, 1949).

Several of the larger cities in the country stand out either because of programs marked by the application of carefully developed values to problems or because of actual appraisal procedures followed or because of both. These include Detroit's Citizenship Study, financed by the Volker charities and directed through Wayne State University; the Openmindedness Study in Philadelphia; the widely recognized Springfield, Massachusetts, plan for improving human relations; and the work in intercultural education developed in the city of Gary, Indiana.

Especially since 1950, many local projects (which were basically evaluative in nature) have been carried forward in the form of action research. The first of a few good examples that have the added virtue of being preserved in print is the study made in the public schools of Springfield, Missouri, in consultation with several consultants from the Horace Mann-Lincoln Institute of School Experimentation of Teachers College, Columbia University. The project, meticulously described by Foshay, Wann, and others, was published as *Children's Social Values: An Action Research Study.*[24]

A second local action-research project of consequence, also undertaken by the Horace Mann-Lincoln Institute, was described in rich detail by two distinguished leaders in the realm of action research: Mackenzie and Corey. Their book, *Instructional Leadership,* not only explores opportunities, responsibilities, and problems of leadership but also illustrates (as Hollis L. Caswell notes in the Foreword) ". . . how a group of school leaders can test more objectively than is customary the success of their efforts and modify their plans in the light of the evidence they obtain."[25] This evaluation project covered a three-year span, the action research being done in Denver.

Carter, Harden, and Nesbitt[26] described the development and accomplishments of a series of evaluative or action research projects in operation throughout the Detroit area by the mid-1950's. These were of particular interest as an example of local evaluative activities because of the involvement of teachers within a metropolitan area rather than within one district.

REGIONAL AND STATEWIDE EVALUATION PROJECTS. In addition to local activities that either centered around or involved the use of evaluation, considerable work is reflected in publications from state departments and universities or associations of regional influence. Since the reader is likely to wish to examine some of the highly useful evaluative tools that have appeared, for the most part since 1950, an annotated list of instruments is presented below, as a means of both presenting and discussing state and regional developments:

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[24] Foshay and Wann, *Op. cit.*

[25] Gordon N. Mackenzie and Stephen M. Corey, *Instructional Leadership* (New York: Bureau of Publications, Teachers College, Columbia University, 1954), p.*v.*

[26] Paul Carter, Mary Harden, and Daniel Nesbitt, "The Classroom Teacher and Action Research," *Educational Leadership,* 11:465-470 (May, 1954).

BIBLIOGRAPHY OF ELEMENTARY SCHOOL EVALUATIVE GUIDEBOOKS[27]

(1) Arizona State Department of Public Instruction. *Evaluative Criteria for the Elementary Schools of Arizona.* Phoenix, Arizona: State of Arizona Department of Public Instruction, 1951.

> Areas selected for appraisals are: (1) the school environment, (2) instructional materials and equipment, (3) educational personnel, (4) classroom program and instructional effectiveness, (5) school lunch, (6) transportation. Five-point scale is used.

(2) Arkansas State Department of Education. *Guide for the Study of the Elementary School.* Prepared by the Elementary School Council. Little Rock, Arkansas: State Department of Education, 1950-51.

> The guide is to serve as a basis for the cooperative study of the total school program and for the cooperative planning for improvement. Considers the following areas for appraisal: (1) the teacher, (2) buildings, grounds, and equipment, (3) curriculum, (4) library, (5) community relationships, (6) the pupil, (7) administration and supervision. Has a four-point rating scale.

(3) Boston University. *Elementary Evaluative Criteria.* Boston University: School of Education, 332 Bay State Road, Boston 15, Mass., 1953.

> An elementary school evaluative instrument developed as a group research project by 25 graduate students at Boston University during the 1951-52 school year. The manual considers the following areas for evaluation: (1) philosophy and objectives, (2) the curriculum, (3) library services, (4) guidance services, (5) school plant, (6) school staff and administration. The basic format of statements of guiding principles, checklist and evaluation items, and graphic summaries found in the Cooperative Study's materials has been followed in setting up these criteria.

(4) Colorado State Department of Education, *Self-evaluation of Elementary Schools in Colorado.* Denver: The Colorado State Department of Education, 1956. 71 pp.

> An excellent instrument which focuses attention on pupil-community data, philosophy, plant, school personnel, and curriculum. Flexible

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[27] Originally compiled by Robert Romans for the bibliography in the Colorado State Department of Education Evaluative Guidebook, which is Number 4 in this listing.

five-point scale is used for purposes of recording professional value-judgments.

(5) Cooperative Study of Secondary School Standards. *Evaluative Criteria.* Washington 6, D. C.: Cooperative Study of Secondary School Standards, 1950 Edition.

Developed by representatives of the six regional associations of the United States during the thirties. Original form published in 1940 and used extensively; revised and brought up to date in 1950. The form is under study and current revision for the 1960 edition. Under the section on basic information considers: (1) pupil population and school community, (2) educational needs of youth. Under the major section on school evaluation considers: (1) educational program including separate headings for each of the major subjects, (2) pupil activity program, (3) library services, (4) guidance services, (5) school plant, (6) school staff and administration.

(6) Idaho, University of Idaho, *Let's Take Stock: Time for Inventory. Criteria for the Elementary Schools of Idaho.* Boise, Idaho: University of Idaho, 1950.

Evaluation instrument developed by a graduate seminar group at the University of Idaho. List of self-evaluating criteria to be used as a "directional guide" for the school in selecting certain areas in which improvement is needed. Criteria is concerned with (1) buildings and equipment, (2) staff, (3) community, (4) curriculum.

(7) Montana State Department of Public Instruction. *A Foundation Program for Elementary Schools of Montana including Self-evaluation Basic to Accreditation.* Helena, Montana: State Department of Public Instruction, 1951.

A self-evaluation booklet prepared in setting standards for a foundation program to meet the 1949 law requirement "to include accreditation of elementary schools of Montana as a prerequisite to receiving state funds." The areas covered are: (1) the curriculum, teacher, community, (2) methods of instruction, (3) health and safety, (4) instructional supplies, (5) library, (6) equipment, (7) buildings, (8) grounds.

(8) Nebraska State Department of Education. *A Guide for Evaluating and Improving Nebraska Elementary Schools.* Lincoln, Nebraska: State Department of Education, 1955.

A guide prepared to assist in the evaluation of the elementary schools in Nebraska. Original manuscript of the guide was prepared in a workshop during the 1954 summer session of the University of Nebraska. Considers the following major areas: (1) program of studies, (2) guidance, (3) library services, (4) administration and supervision, (5) school personnel, (6) home-school-community relations, (7) school plant and instructional equipment.

(9) New Mexico State Department of Public Instruction. *Evaluation Handbook for Elementary Schools*. Santa Fe, New Mexico: State Department of Public Instruction, 1956.

Based on an effort to make available to the elementary schools of New Mexico a systematic, orderly and comprehensive technique for scrutinizing the total educational program of a school. The handbook contains seven major sections: Philosophy and Objectives, General Operational Practices, Primary Learning Activities, Middle Grades Learning Activities, Upper Grades Learning Activities, School Plant and Equipment and Staff Evaluation.

(10) Ohio State Department of Education. *Evaluation of Elementary Schools*. Columbus, Ohio: State Department of Education, 1949.

A self-evaluation form consisting of eighteen standards with sub-statements pertaining to each. Suggests that each elementary school should evaluate itself in terms of the sub-statements and the standards listed using a five-point rating scale—very superior, superior, average, inferior, very inferior.

(11) Southern Association's Cooperative Study in Elementary Education: *Evaluating the Elementary School. A Guide for Cooperative Study*. Commission on Research and Service, 316 Peachtree Street N.E., Atlanta, Georgia, 1951.

A comprehensive guide for evaluating elementary schools. The book is excellent but its usage somewhat complex, since descriptions of many concrete situations are required.

(12) Texas State Department of Education: *Handbook for Self-appraisal and Improvement of Elementary Schools*. Developed under the direction of Edgar Wilson, State Director of Elementary Education, and Dr. Henry Otto, General Consultant, State Department of Education, Austin, Texas, 1950.

The handbook is a result of ten years' work in Texas on the program of evaluation of elementary schools. Five levels of achievement, with descriptions for each level, are given. Into these, one matches the practices in the individual school.

(13) West Virginia State Committee and State Department of Education. *Criteria for Evaluating School Growth Elementary and Secondary in a Twelve-year Program*. West Virginia: State Department of West Virginia, 1950.

An evaluative device aimed to encourage cooperative study and improvement of practices rather than meeting standards in an individual school. Five-point scale West Virginia used in evaluating the following areas: (1) school organization, (2) curriculum—the program in action, (3) use of instructional materials and resources, (4) pupil growth, (5) community relations.

The examples of evaluation in action that we touched upon constitute a far-from-inclusive list. They do, however, illustrate the scope of the efforts that American education is making, and has been making, to achieve important value-goals. The search for values, and for the sense of direction they provide, is an indication that the schools are coming of age.

At first glance, the range of activities and projects identified with evaluation may seem confusing, just as the extensive nature and comprehensive functions of the process may seem to embrace all of life and living. But reflect a moment. The evaluative approach, the new and comprehensive concept of measuring educational progress with respect to desired human development that the term signifies, is by its nature inclusive. It represents a functional union of philosophy and practice because evaluation is a continuous process of inquiry based upon cooperatively developed statements of the values for which schools are reaching, so that children, with increasing success, may live maturely first as children, then as adults.

▪ Summary

An observant contemporary writer has said that "to write or speak is almost inevitably to lie a little." The truth of this semantically accurate criticism of human communication is reflected in any effort to characterize evaluation. Within the limitations imposed by the frailties of the written word, Chapter 3 sought to point to confusions clustering around the process of appraisal and to the five interpretations of evaluation that seem most widespread. An attempt was made to define the term, so as to provide a single interpretation to which all other definitions are subordinate. Steps in the evaluative process were proposed with full awareness that they fit no situation exactly, and the interrelated characteristics and functions of evaluation were suggested. Next, action research was considered in relation to evaluation. Finally, to show both the differing interpretations and versatile nature of evaluation, examples of current appraisal projects were reviewed.

Discussion Questions and Suggested Activities

1. List one or two of your local school problems or matters that might call for research and study, and share with others in the class some of the ways in which evaluative-research or action-research procedures might be applied to such problems or matters.

2. If evaluative procedures actually have been put to work in your local school district, describe how the process has been carried forward. In view of Chapter 3, what do you deem especially effective in your local appraisal of the curriculum? What might have been improved?
3. Write to one or more publishers for the evaluative tools and devices listed in Appendix C. As a group, discuss and analyze some of these materials.

Selected and Annotated Readings

1. Association for Supervision and Curriculum Development, "Evaluation of Teaching," *Educational Leadership,* 15:4 (January, 1958). (See entire issue.)
2. ———, "How Evaluate?" *Educational Leadership,* 8:2 (November, 1950). (See entire issue.)
3. ———, "Research in Today's Schools," *Educational Leadership,* 10:7 (April, 1953). (See entire issue.)

The three references cited above provide an excellent résumé of comments, opinions, and descriptions pertaining to evaluation and action research. Because of the period of years covered, the articles are also of historical interest as a record of assorted views on evaluation over a period of nearly a decade.

4

Conflicting Values in American Culture as a Source of Problems in Curriculum Planning

MAN'S behavior is governed by the values he has come to accept during the years of cumulative experiences that make up his lifetime. What he thinks, what he looks upon as "good," and what he does are controlled and restricted by the chains forged by his values: uplifting or debasing, humane or bestial—whatever his experience has made them.

By the same token, the success of the evaluative process as a means of improving the elementary curriculum is inseparable from the values of participants, because these values set the goals or citizenship outcomes that education seeks and perpetuates. In American schools, as in American culture, there are value conflicts that create confusion. Thus, in making an effort to use evaluative procedures, teachers must at the very outset guard against the dangers of terminating their efforts in disagreement and misunderstanding or of accepting statements of "values to be attained" that are watered down and ambiguous to the point of being meaningless. This need not happen if evaluators are aware of the influence of values on individual and group behavior, of the nature of conflicting values in the culture, and of the need for consistency and intelligence in resolving value clashes.

■ Value Patterns and Human Behavior

VALUE PATTERNS AND CONDUCT. Man and the experiences that have molded him provide the evaluator with a starting point in learning to cope with the problems encountered in setting up goals for education. Some indication of the seriousness of the difficulties encountered is provided by the following illustration.

The influence of values on individual conduct. One of the writers recently was invited to work with a commission sponsored by a large educational organization. The chairman of the commission appeared to be an admirable choice; he was not only familiar with the problem confronting the group but particularly able in steering group processes because of his highly developed skill in fostering good human relations. On the second day of the commission's activity, the writer lunched with two of its members, one of whom was the able chairman, the other, "Dr. Mary Doe." The cafeteria selected was crowded, and, in the absence of an empty table, "Dr. Doe," with tray in hand, headed for one at which there were three empty places and a lone diner. The chairman in a strained voice said suddenly, "I'd rather you didn't."

The man at the table was a Negro—and the chairman was from a part of the South where value patterns long had supported segregation. Despite his demonstrated insight into interaction with other human beings, he was controlled by his values even when 1000 miles from home in a metropolis of the North. The incident is the more potent because it involved an educator charged with the intercultural responsibilities that inevitably accompany an important position in education.

Everyone responds to the situations he faces in daily life through behavior consonant with his personal values and in keeping with the unique elements of his being. This must be faced frankly in any valuing that is undertaken.

Many children in the elementary school are "educated for prejudice" because of the values that bias people, including the classroom teacher. Furthermore, the more skillful the biased teacher the more dangerous he is in coloring the attitudes that children, through contagion, acquire from him. George Payne Rainsford James put it neatly when he wrote: "A great man is worse than one of less talents, for he has the extended capability of doing harm."

When broad appraisal of the school is undertaken, the school worker deals with values as they govern parents and his colleagues. In the continuing process of classroom appraisal, he faces the embryonic conflicts that are forming within each child. Fortunately, evaluation requires the inspection of one's own values and helps appreciably to dissolve disagreement by irrigating the mind through the study of aims for classroom, P.T.A., or community council.

Value patterns and group behavior. In addition to his unique behavior, stimulated by personal values, the average American has developed patterns of group behavior that influence large minorities, and occasional majorities. These patterns of stereotyped behavior, which are sometimes fostered by public education, take many forms. It is vital for the evaluator to study them because they cloud clear thinking. This beclouding is due to the fact that stereotyped attitudes are held without examination: "It's so because it's so" is sufficient defense. In his readable *Anatomy of Peace,*[1] Emery Reves describes the "typical" attitude of the American, the Englishman, the German, and various other nationals toward the reasons generally accepted for involvement in World War I and the explanations of the outcomes of the struggle. Each stereotyped view is biased, yet plausible if certain assumptions are accepted. Sadly enough, all are at least partly in error and illustrate the depth and breadth of the troubles that are encountered through clashing values and beliefs.

The need for mature group values in education has been presented with feeling, not by an educator but by a journalist, Leland Stowe, who wrote:

> This much is self-evident because of the unique power position of the United States, and because misunderstandings and festering animosities between nations inevitably breed wars. Since no other nation has so much power as America, no other nation's people could possibly contribute more toward removing war-irritants and hate-poisonings between peoples. But are we now being prepared, or are we now being educated, to fill this role of such great possibilities? Are we producing any notable quota of minds of mediation, comprehension, and tolerance?
>
> The small town public schools which I attended . . . were reputedly somewhat above the average. But I do not remember that any teacher ever told us how much the United States owes to the countries of Europe. I was never taught that Italian immigrants had brought to America a love of music, and that the Germans and Jews had done the same. I was never

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[1] Emery Reves, *The Anatomy of Peace,* 9th ed. (New York: Harper & Bros., 1945), Ch. I.

taught that the Scandinavians had brought with them a pronounced industriousness. No teacher ever impressed on my mind what we owe to British processes of democratic government, to French logic and French art, to the Greek concept of democracy, or to the staunch independence of our Polish, Baltic, Russian, and other immigrants. I was not taught that the strength and variety of American society were indebted in any degree either to our constant inflow of European immigrants or to European civilization. So I graduated from high school, as most youthful Americans had always done and are still doing today, serene in the conviction that virtually everything in the United States was strictly a product of American environment and American soil.[2]

If Stowe's conviction is correct—and it seems eminently reasonable—some public schools have inadvertently but effectively contributed to patterns of value in the young that are antagonistic to the lofty goals to which allegiance is pledged in the forewords to curriculum bulletins. Assuming Stowe is correct, evaluators are put on their mettle in doing something about examining and improving group value patterns.

Values and cultural change. Two decades would be enough time in which to rear a generation free of the adult prejudices and bias that delay socially desirable changes. But the value patterns of teachers and parents have long since frozen and can only be partly thawed in their lifetimes. They are one with the cultural universe bounding their world, and cultural change, therefore, is inclined to occur with glacial slowness.

Since people change slowly, lasting progress is evolutionary rather than revolutionary; but evaluative processes hasten evolution to the extent that they require us to examine, refine, and act upon our beliefs.

WHAT ARE VALUES? Evaluation is an important means of bringing about desirable changes in values and in the culture that they mold. We must, therefore, examine the question: What are values? And we must do this before considering some of the conflicting values in America that must be understood before an appraisal of the elementary school can be undertaken with any hope of success.[3]

All living things are selective. As their organic structure becomes more complex, choices become more and more deliberate. Among human beings selections and preferences become conscious desires. It is in these desires that value resides. What men want, they value. Numerous, unpredictable, illogical, vain—whatever they may be—human desires determine value. The implication here is important. Values do not inhere in things or even in actions, although actions may reflect values. Values inhere only in people, and "Value to whom?" must be asked if the term *value* is to have any meaning.

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[2] Leland Stowe, *While Time Remains* (New York: Alfred A. Knopf, 1946), p. 305.

[3] The five paragraphs that follow are adapted from an unpublished manuscript by Frederick Reed, principal of the Greeley School, Winnetka, Illinois.

Is a diamond of value? Not to a baby, and rarely to a castaway. Is water of value? Perhaps inestimably so to the desert traveler; never to one drowning in Lake Michigan. One must specify "to whom." John Doe and his immediate personal cronies with similar proclivities arrive at similar conclusions regarding what is really worth while and pity those benighted persons who prefer bridge to poker, the straight party ticket or communism to enlightened, ballot-splitting liberalism, or football games to baseball. Something is so obviously wrong with *their* values!

But how can values be evaluated? There is the strong tendency for every group sharing common values to assume their ultimacy and to judge all others by them. Religion, for example, is regarded by many as an avenue to such an ultimate criterion, but, in practice, those who hold this point of view almost invariably refer to the tenets of some specific religious faith that they accept and value. Multitudes of religions, and disagreements among the adherents of each, make it impossible for practical purposes to use religion as a standard of absolute value. Since this viewpoint is held by primitive tribes and civilized nations alike, is the only alternative a cynical shrug? This, too, is a commonly accepted "ultimate," but it cannot be accepted by the evaluator endeavoring to appraise the elementary school. He is forced to discriminate among values. Judiciously or impulsively, he must choose. But on what basis?

When values are in conflict in a democracy, there seemingly is only one alternative to anarchy. Rational choices must be made in order to select those values that are most likely to contribute to producing a situation in which the welfare of one is recognized as being linked to the welfare of all. Values to be sought through education thus become identified with the quality of the relationship existing among human beings working for the general welfare and engaged in making the lot of each individual ultimately more satisfying.

Human desires determine values, and values inhere only in people. Values in a democracy thus become inseparable from the integrating experience that ensues as many people become a cohesive group, assembling, weighing, and adjusting their personal strivings so that they advance the well-being of people everywhere. As they reach agreement, values become the necessary cement of a culture, the element that keeps human behavior from disintegrating into chaotic confusion.

This point is well stated by the Educational Policies Commission of the National Education Association with reference to values and public education:

> In the last analysis, the purpose and program of any school depend upon some judgment regarding what is good or bad in the conduct of human affairs. Education is a program of social action toward goals that are based on a scale of values. The good school is one which most completely reflects the highest values of the surrounding society.
>
> These systems of ethical values are codified in many ways. They underlie the faith and doctrines of all great religions. They guide social life in the family and the community. As constitutions and statutes, they order the corporate life of the state, the nation, and to some extent, of the world. They take their most definite forms in legal codes, but the customs of group behavior are often fully as powerful as the sternest penalties of legislation.[4]

To sum up, values are associated with those things that we cherish. Also, they govern our behavior when we are confronted by choices. Finally, they are relative to situations:

In every way in which we live,
Our values are comparative.

Observe the snail who, with a sigh,
Says, "See those turtles whizzing by!"

■ Some Sources of Value in American Culture

Values serving as the cement of American culture and as influential elements conditioning the education of children have parallels dating from the earliest ages. The late Ruth Benedict has pointed to anthropological findings regarding ways in which primitive peoples work to instill their tribal values in the young by dramatizing what they feel is important.[5] The same was doubtless true in prehistoric times. Many writers have noted how education in ancient Greece, particularly in Sparta, was severely controlled so as to eventuate in behavior assumed necessary for national-cultural survival. Rome in the era of the Republic provides a further illustration. The success of the medieval Church in perpetuating itself for centuries, partly because of its monopoly on education, requires no comment, nor does the skill of the nobility during the high Middle Ages in incorporating its values in the training of young men and women in the code of chivalry.

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[4] Educational Policies Commission, *Education for ALL American Children* (Washington, D. C.: National Education Association, 1948), p. 2.

[5] Ruth Benedict, "The Educative Process—A Comparative Note," *Mental Health in the Classroom,* Thirteenth Yearbook, Department of Supervisors and Directors of Instruction (Washington, D. C.: The Department, 1940), pp. 122-125.

Less familiar is the impact of medieval trade, following the Crusades, upon the values, and subsequently upon the schools, of commercial centers, such as the Hanseatic cities. When the influential merchants of such centers as Lübeck, Breslau, and Cologne felt a growing need for clerks and scribes to work in their countinghouses, the first municipal schools, largely dissociated from the Church, were founded.[6] In their desire to prepare lads for service in the countinghouses, the traders provide an early example of a special-interest group influencing education to serve the values (in this instance, monetary) that it cherished.

Looking across the centuries and choosing at random, we may find another example of values-in-action influencing conduct in the beliefs of the Puritans in England and America. Even stories for children were thoroughly impregnated with the views of the elders who wanted no erring soul to stray from righteousness as they saw it. Here are typical examples[7] of the application of adult morality in children's literature of the period:

> When by spectators I am told
>   What beauty doth adorn me,
> Or in a glass when I behold
>   How sweetly God did form me—
> Hath God such comeliness bestowed
>   And on me made to dwell—
> What pity such a pretty maid
>   As I should go to Hell.

Janeway's *The Token for Children, an exact account of the Conversion, holy and*

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[6] Founding dates for early municipal schools were: Cologne, 1234; Lübeck, 1252; and Breslau, 1267. See F. Watson, *English Grammar Schools to 1660* (Cambridge, England: Cambridge University Press, 1909), pp. 21 *ff*.

[7] The first two excerpts are quoted in Edna Johnson, Carrie E. Scott, and Evelyn B. Sickels, *Anthology of Children's Literature* (Boston, Houghton Mifflin Co., 1948), pp. 974-975. Appendix A in this anthology contains a number of examples of writing for the young that mirror writers' efforts to indoctrinate.

exemplary lives, and joyful deaths of several young children.

For Satan finds some mischief still
For idle hands to do . . .

Watts' *Divine Songs for Children* (1715)

'Tis time to seek to God and pray
For what I want for every day:
I have a precious soul to save
And I a mortal body have.
Tho' I am young, yet I may die
And hasten to eternity:
There is a dreadful fiery Hell,
Where wicked ones must always dwell.

The New-England Primer

The lay teachers of the Roman Catholic Christian Brethren, founded by Jean Baptiste de La Salle and especially active in the eighteenth century, represent yet another sectarian effort to achieve values through instruction, while early educational developments in the southern, central, and New England sections of Colonial America reflect three markedly different value patterns in a new land, despite the common antecedents of most of the settlers.

Whence do values bearing on the public schools of modern America come? What led to the acclaim and influence of the moralizing McGuffey Readers? To the respect paid and heed given to the pronouncements of the Committee of Ten created by the National Education Association in 1892? To the mimicry of business efficiency from 1915 to 1935? To a more recent emphasis upon self-realization and life adjustment? To the current stress, in many communities, placed on more formal academic achievement? At least some value sources can be defined.

THE CLASSICAL TRADITION AS A VALUE SOURCE. Many Americans, deliberately or unwittingly, look to the classical tradition as a source of their values. The parent who insists that his son or daughter enroll in Latin in high school is exercising his viewpoint that somehow "hard learning" will train the mind. Veneration of the writings of the Great Ancients as repositories of wisdom applicable to a world of which Socrates, Plato, Aristotle, Aeschines, Tacitus, or Ovid never dreamed is in the same tradition. Much of that to which such gifted men owe their enduring memory, of course, continues to make sense. It was

Aristotle, for instance, who said, "Education is the duty of the state and should be enforced," and that "States governed for the good of all are well governed." Seneca contributed, "By far the most important possession is skill in the art of living," and Quintus Rufus noted that, "Habit is more powerful than nature." To Quintilian we owe, "By nature we are very retentive of what we learn when young." These statements are contemporary despite their age.

Irrespective of real merit in writings from the past, the study of the classics *per se* is not a final answer to man's problems. Human genius, even in an Aristotle, cannot bridge two millennia and still be completely applicable. Woodbridge pointed this out when he wrote:

> The source of Greek intelligence and its products was not antiquity but nature. Those ancients drew from an inexhaustible source, one not located in the past or traditionally guarded, but one surrounding them with wonders daily new. The moment they forgot that source, they might still teach the wisdom of the fathers to the Romans; but they ceased to be productive. They could hold up examples to imitate, but they could produce no new models.[8]

The present-day United States is infinitely more remote in history from ancient Greece than were the Romans who first gave heed to the Greek humanists. The worth of the classics as a value source in modern education must, therefore, be questioned, even while the compelling force of their continued influence is recognized.

RELIGIOUS AUTHORITARIANISM. So ingrained in millions of persons are the tenets of their religious faiths that a substantial part of their action is directed by these teachings. Many an argument, for example, ends when one of the participants hits upon an apt quotation from the Scriptures, Talmud, or Koran which supports his contention. The value source of religious authoritarianism is so completely a part of American life as to need little elaboration. Ethics and law have become what they are in the Western World because of the interpretations man has given to the Judaic-Christian traditions of the past 3000 years.

The direct influence of religion in the contemporary education of children in parochial schools is evident in the following statement by Father McGucken, formerly of St. Louis University, who concerned himself with the nature of Catholic education in a yearbook chapter: "Education is the organized development and equipment of all the powers of a human being, moral, intellectual, and physical, by and for their individual and social uses, directed towards the union of these activities with their Creator as their final end."[9]

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[8] Quoted by John L. Childs in *John Dewey as Educator,* Progressive Education Association pamphlet (New York: The Association, n.d.).

Indirectly, in nearly all schools, private and public, religion is a part of the fabric of school living. Holidays, religious education programs, and the elements of religion in subject matter are examples of its permeating force. Thanksgiving, in the primary grades, is often studied with heed to the devoutness that led to the First Thanksgiving. Christmas festivals have an even more evident sacred character. In the later elementary years, the relationship of religion to history is almost invariably taught.

The personal creed voiced by a leading philanthropist suggests the role of religious values in daily life and conduct. At a drive for funds in New York City, during which he donated $100,000, John D. Rockefeller, Jr. said in his opening address: "I believe in an all-wise and all-loving God, named by whatever name, and that the individual's highest fulfillment, greatest happiness, and evident usefulness are to be found in living in harmony with His will." In practice, this suggested to Mr. Rockefeller that ". . . the rendering of useful service is the common duty of mankind and that only in the purifying fire of sacrifice is the dross of selfishness consumed and the greatness of the human soul set free."[10]

A wide variety of similar testimony to the teachings of religion and their powerful influence on behavior may be found in even a casual examination of the daily press.

SCIENCE AND RESEARCH. Tremendous respect, sometimes verging on awe, is paid to the contributions of science and research and their practical applications. This seems sufficient to justify their inclusion in a listing of sources of values. Parents wish their children to have a knowledge of science. In fact, the "scientific approach" is considered essential even in advertising, as when a popular brand of cigarettes not long ago urged the public to make a "scientific" test of their mildness by blowing smoke through the nostrils.

Great men of science have become popular heroes in numerous books, like those of Paul de Kruif, and poets have paeaned their praises, to wit:

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[9] William McGucken, S.J., "The Philosophy of Catholic Education," *Forty-first Yearbook of the National Society for the Study of Education,* Part I (Bloomington, Ill.: Public School Publishing Co., 1942), p. 255. (Quoting T. Corcoran, S.J., *Private Notes,* Dublin, n.d.)

[10] Quoted in *Time* Magazine, July 7, 1941.

AND YET FOOLS SAY[11]

He captured light and caged it in a glass,
Then harnessed it forever to a wire;
He gave men robots with no backs to tire
In bearing burdens for the toiling mass.
He freed the tongue in wood and wax and brass,
Imbued dull images with motions' fire,
Transmuted metal into human choir—
These man-made miracles he brought to pass.
Bulbs banish night along the Great White Way,
Their threads of copper throb with might unseen;
On silver curtains shadow-actors play
That walk and talk from magic-mouthed machine,
While continents converse through skies o'erhead—
And yet fools say that Edison is dead!

George S. Holmes

We may be putting it a bit strongly when we maintain that respect for things scientific has become a cult, but there is evidence which at least partly justifies this view. The mysteries of such arcanal sciences as nuclear physics tend to create awe, and as Cesare Lombroso once noted, "The ignorant man always adores what he cannot understand." Most people are relatively ignorant of science. Whether a cult or not, respect for science and the research that supports it affects American values.

HEARTHSIDE VALUES. Those things that persons cherish because they are family traditions, beliefs, and convictions comprise hearthside values. This value source is difficult to characterize because it may differ widely among individual families, but it is nonetheless palpable and powerful. In the aggregate, hearthside values are the thousands of impressions acquired from birth, and they appear to be especially active in shaping personality during the formative years of early childhood.

Sally Jean, in her family circle, may become veneered with a hardening layer of prejudices and fears, while Mary Ann in *her* home may be developing faith and trust. Bill, at seven or eight, may have a contempt for labor, socialists, and government controls in the making before he senses the meanings of these names, while Joe at the same age and through a different hearthside atmosphere in *his* environment feels that their antitheses are good. Efron,[12] in *Gesture and Environ-*

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[11] Quoted in Johnson, Scott, and Sickels, *op. cit.*, pp. 933-34.
[12] David Efron, *Gesture and Environment* (New York: King's Crown Press, 1941).

ment, demonstrated in a study of Jewish and Italian immigrants that gesture and posture suggest the individual's social history. In at least as great a measure, human beings absorb the intangible values that guide the family in living its social history along with more palpable traits.

VALUES OF THE MARKETPLACE. "If it works, it's good" is the motto of a large group of persons in American culture who are directed by the values of the marketplace. While they frequently are unaware of the shades of meaning of the motto, these persons are the practicing pragmatists who view successful action as their desired goal. These practical philosophers consider knowledge as a mere means to successful activity, and they are concerned mostly with the consequences of behavior as it bears on their self-enhancement or personal gain.

The butcher with his thumb on the scale, the housewife who notes and ignores an error in her favor in a bill, the salesman who palms off a badly worn auto under a coat of polish as a "Completely reconditioned used car good for years of carefree service" are giving expression to the marketplace values they have acquired. "Do the other fellow in before he does you!" is an outlook that knows no boundaries of race, sex, or religion.

FREE ENTERPRISE. Despite nebulous qualities that make it difficult to define, free enterprise deserves a place in a survey of value sources. It can be characterized by listing some of the views held by a substantial and articulate number who defend and extend free enterprise. Some of these are sound, some are outdated:

The least government is the best government.

Any man willing to work can obtain employment.

Strikes are usually due to malcontents.

Powerfully organized workers are a threat to the American Way of Life.

Aid to foreign lands and/or lower tariffs will beggar the United States and corrupt the recipients.

The employer, not government, has a responsibility for the health and welfare of his employees.

Education should build true Americanism in the young.

Applied technology and American brains and ingenuity made the country great.

Hospitals, schools, and other desirable social institutions deserve generous public support, but not federal funds.

Through his years of active service the conscientious, hard-working individual is fairly and properly rewarded.

Despite minor inequities, people generally have a good chance to succeed in their chosen fields; opportunities are abundant.

A college education matters less than the man himself, but promising young college graduates are the more desirable junior executives.

Women are less gifted than men in business, preachers and professors excepted.

New and better ways of making goods more cheaply and in larger quantities should be sought continually.

Anything but a minimum of taxation is an unmixed evil.

The tenets of free enterprise, contrary to some current opinions, are not limited to any specific social or economic strata, although interpretations may vary, for instance, between owners and employees. Most Americans accept at least some of the views free enterprise encompasses but differ on interpretation. What, for instance, constitutes "fair" taxation, working conditions, and wages or "true" Americanism in the schools or "good" government?

THE GENTLEMAN. A body of Americans feel that value inheres in the gentleman. This concept dates from the period of the Renaissance and cherishes the gentleman who can ride well, converse brilliantly, engage effectively in sports, and who looks at home in a comfortable leather chair against a wall tapestried with "good" books in beautifully tooled Morocco leather covers.

The appeal of this picture is documented by the attempts of advertising agencies to sell products ranging from whisky to expensive automobiles by suggesting that the distinguished gentleman drinks the one and rides in the other.

The gentleman as a value source is especially influential in coloring the rearing of children in many homes and in conditioning social activities in school. It also tends somewhat to promote the strength of the classics as an embodiment of value.

NATIONAL HEROES. Regardless of conflicts among the statements for which they are in part remembered, the lives and precepts of great Americans are a source of value to which people turn in study and in dispute. Here are sample quotations from great leaders that seem significant to education:

A plan of universal education ought to be adopted. It is essential that public opinion, in a government by public opinion, be enlightened. (George Washington)

The purpose of schools is to furnish the succeeding age with men qualified to serve the public. (Benjamin Franklin)

The education here intended is in the practice of the moral duties of . . . citizens. (John Adams)

Education is necessary that men may understand what is going on in the world and keep their part of it going on right. (Thomas Jefferson)

It is impossible to preserve our democratic institutions and universal suffrage unless we raise the standard of education. (Albert Gallatin)

The first duty of government . . . is the encouragement of education. (De Witt Clinton)

Educated people must labor, otherwise education would become . . . intolerable. . . . (Abraham Lincoln)

On education depends the success of our republican institutions and grandeur as a nation. (Ulysses S. Grant)

We must ourselves discover and supply the educational wants of the nation before the time for supplying them has forever passed. (James A. Garfield)

You go to school . . . to serve your country. (Theodore Roosevelt)

Public education is necessary for those conditions, political and social, which are indispensable. (Woodrow Wilson)

Quotations and deeds attributed to national heroes, but unrelated to education, are better known and range from such trivia as Thomas Marshall's comment regarding the nation's need for five-cent cigars[13] through Admiral Farragut's "Dam' the torpedoes," to Willkie's "Freedom is an indivisible word. We must be prepared to extend it to everyone, whether they are rich or poor, whether they agree with us or not, no matter what their race or color. . . ."[14]

These and other sentiments are the stuff by which public opinion, itself an expression of the values people hold, is influenced.

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[13] In the early years of the Depression (1932), Franklin P. Adams brought Marshall's expression of values up to date with the paraphrase, "What this country needs is a good five-cent nickel."

[14] From the inscription on Wendell Willkie's grave, Rushville, Indiana.

DEMOCRACY AND COMPETING SOCIO-POLITICAL BELIEFS. Out of the myriad of value sources that might be examined, this quick survey concludes with democracy and its competitors. Since the early days of the Republic, Americans have looked to democracy as a touchstone or criterion in making decisions. Personal interpretations have varied, but the value source has been similar. More recently, fascism, socialism, communism, and less influential expressions of sets of beliefs have complicated the domestic picture.

Because conflicts within value sources are treated in a subsequent section (see pp. 93-96), democracy is merely mentioned here.

■ Conflicting Values in the Culture

The story is told of old Zeph, a late nineteenth-century Yankee storekeeper in a crossroads village, who provided a home for his nephew Caleb. Caleb, in return, ran errands, clerked behind the counter, and made himself useful in every way a 12-year-old could. Early one morning an overnight visitor to the living quarters on the second story above the Yankee's store was slightly taken aback by the ensuing dialogue:

ZEPH *(calling down the stairs to his nephew):* Caleb, lad, have ye sanded the sugar?

CALEB: Yes, Uncle Zeph.

ZEPH: And have ye larded the butter?

CALEB: Yes, Uncle.

ZEPH: And watered the milk?

CALEB: Yes, Uncle.

ZEPH: Good, lad. Now come up and join us in prayer.

In Zeph is found a good example of the conflicting values that manage to abide side by side in the same personality: values of the marketplace that permitted the old man to engage in gentle swindling of his customers (and, by example, teach Caleb to do likewise) and religious values that demanded unfailing observance of morning prayer.

Millions today, like Zeph in 1892, harbor inside themselves without appreciable ambivalence the same kind of opposing values. It is in the human personality that one discovers the seemingly impossible. The presence of mutually exclusive values that manage to coexist, without apparent clashes, and to dictate with expedience which values momentarily shall determine choices, decisions, and actions in a particular situation. *Homo sapiens* has proved remarkably adaptable, psychologically as well as physically, to his world.

CONFLICTS BETWEEN AND WITHIN VALUE SOURCES. Conflicts that exist between the value sources described in the preceding section bear a significant relationship to evaluation in the elementary school. Evaluation cannot function effectively when teachers and other evaluators are hopelessly inconsistent or when they fail to agree upon the direction in which to go. It is noteworthy that the problem of conflicts also exists in the home (with regard to education, for example) and precipitates additional difficulties, as Overstreet pointed out in the following paragraph, which was reproduced in its entirety in an earlier chapter:

> It is never easy, even at best, for the individual to build sound knowledge linkages with his world; but it becomes infinitely difficult for him to do so in a cultural atmosphere where education is both exalted and despised; where the same two parents send him to school, want him to bring home grades they can view with pride, talk about the impracticality of what is learned in school, [and] admire people less for what they know than for what they own.[15]

A few of the conflicts that require reconciliation prior to successful evaluation are those between the marketplace and religion (as personified by old Zeph), the classical tradition and free enterprise, science and religion, the gentleman and the marketplace, the classics and science, religion and the gentleman, and free enterprise and science. Hearthside values may prove to be in conflict with any or all of the others mentioned, depending upon the individual's upbringing. Great Americans and the values for which they and their writings are assumed to stand provide more examples of conflicts, as even cursory study reveals.

Democratic traditions afford a clear example of internal conflict, of pressures that build up even within a widely accepted source of values. Among adherents of democracy there are those to whom the term primarily connotes equality at the ballot box; to others it stands for an end to rigid social stratification—freedom to rise above one's present social status, freedom to acquire and to exploit property—to become one of the economically favored, or simply freedom to do as one chooses, if by so doing the rights of others are not violated. Others, equally vehement in its advocacy, may think of democracy in terms of the frontier and agrarian tradition scorning refinement, an outlook dating from the time when the educated and mannered person was likely to be a Tory and highly suspect. Vestiges of the scorn-for-refinement and pride-in-ability-to-work-with-one's-hands are found even now in campaign photographs of candidates pitching hay, milking cows, or feeding the pigs. Some aspiring politicians capitalize regularly, at election time, on a certain unmannerliness which some voters seem to find reassuring evidence that the candidate is trustworthy and definitely not a "slicker."[16]

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[15] H. A. Overstreet, *The Mature Mind* (New York: W. W. Norton & Co., 1949), pp. 140-141.

One more interpretation of democratic traditions will round out a description of internal conflict. Among many educators and others who have studied it, democracy is conceived as a way of living together better than any other yet devised, a wholesome way that prizes individuality and promotes self-realization.

Although he may not be able to alter them radically in a short span of time, the teacher-evaluator must be cognizant of the constant stress and strain of competing values. He also should be sensitive to the confusion they create in the elementary curriculum and the whole life surrounding the school. The need for school people to possess insights into value conflicts is equally great, whether they be employed in a teeming New York tenement area, a broad-lawned suburb of Chicago, or a rural district in the hills of southeastern Ohio. To many a citizen, oblivious to inconsistency, his value sources suggest that it is good for his children or his neighbor's children to grow to maturity through a school program which insures that they will be religiously devout yet scientifically critical; young ladies or gentlemen who also are at home in a competitive dog-eat-dog world; heirs to the good preserved in the classics, which "train the mind," and yet not aloof from the free-enterprise world in which they are expected to earn a living. This is altogether a large order for public schools.

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[16] A careful scholar has given a good picture of the scorn-for-refinement in action. Marquis James, describing the reception following Andrew Jackson's first inauguration, wrote that ". . . Washington was accustomed to a few days of stimulating confusion, but to no such horde as descended upon the embryonic city to see Jackson reap and allot the rewards of six years of championship of the common man. . . . They roamed the streets surging in and out of taprooms until the spectre of a whisky famine contributed to an outlook already unsettled.

". . . In the stately East Room [of the White House] long tables were spread with cakes and ice-cream and orange punch for the officially and socially eligible as defined by precedent. . . . The mob . . . swept through the Mansion gates . . . leaving the 'eligible' to shift for themselves. Representative and Mrs. George Gilmer of Georgia got in by clutching the coattails of Representative and Mrs. John Floyd whose 'two stout sons' cleaved a path. They remained long enough to see clothing torn, women faint, glasses and china broken. 'One hundred-and-fifty dollar official chairs [were] profaned by the feet of clod-hoppers' anxious for a glimpse of their President." Marquis James, *The Life of Andrew Jackson* (Indianapolis: The Bobbs-Merrill Co., 1938), pp. 489 *ff*. Copyright 1933, 1937, and 1938. Used by permission of the publishers, The Bobbs-Merrill Company, Inc.

It is the matter of conflicting values and the curriculum of mid-century education to which attention must next be directed.

▪ Value Conflicts and the Elementary Curriculum

THE PRESSURE OF VALUES ON THE CURRICULUM. At times the compelling influences of particular sets of values have an enormous impact upon educational practice and must be anticipated when teachers contemplate curriculum change through the evaluative process. Every community has groups whose values prompt them to organize, either formally or informally, to strengthen or defend the beliefs that their value patterns inspire. The forms in which pressures are manifested vary in detail but are similar in their concentration upon influencing, controlling, or directing what children learn. *Publishers' Weekly*, in the 1940's, printed a case in point:

> PRO-URUGUAY TEXTBOOK DROPPED FROM SCHOOLS OF JERSEY SUBURB
>
> Fearing that the Follett Publishing Company textbook, "Our Southern Neighbors," might "make Socialists out of sixth-graders," the Rutherford (N. J.) Board of Education has discontinued the use of the book in the public schools of the town, where it had been used for five years. The part of the book dealing with Uruguay was much too favorable, the board decided by a 5-4 vote on June 28, following a two-week discussion.
>
> One passage that caused the dispute, according to the New York *Herald Tribune*, said Uruguay "is sometimes called Utopia, the land where everything is perfect." A board member objected that a book should not say that a government other than that of the U. S. A. was perfect.
>
> Another disputed passage was one which said Uruguay had provided old-age pensions and the eight-hour day 20 years before the United States. Board members argued that New Jersey and others states took these steps long before the U. S. Government did.
>
> The board, according to the *Herald Tribune* report, considered a letter in which Follett said it was revising the disputed passages, but still voted against the book.[17]

The daily press contains a quantity of similar items. Typical of these is this excerpt from one that appeared a few years ago in a central Ohio newspaper under the heading, ". . . School Officials to Study Parents' Demands":

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[17] News article in *Publishers' Weekly*, July 10, 1948, p. 137.

In the . . . curriculum, the parents asked less attention to social studies, global attitudes, human relations, etc., and more to the "simple virtues"—teaching of basic subjects, respect for authority, consideration for others, modesty and pride in individual initiative. [Note the conflicts here. The parents request *less* work in improving human relations and *more* consideration for others.]

Criticisms, voiced by the 70 persons signing this complaint to the board of education, were directed at poor discipline, "lack of standard teaching," de-emphasis of competition in grade reports, inadequate instruction in history, civics, spelling, writing, mathematics, and so forth, and sex education given without express permission from parents. Positive suggestions from the parents involved a monthly fire drill, administrative support for high school fraternities and sororities, and "complete chaperonage of all school activities." The superintendent was quoted as commenting that, "From the standpoint of psychology and education, certain phases of the report are not basically sound. However, it is a well-thought-out report, although very general in nature, and deserves the careful consideration of the board and the administration."[18]

Pressure groups often succeed in sponsoring the passage of legislation, local, state, and federal, that forwards or purports to forward their values. Widespread legislation of this sort touches on such matters as conservation of resources, patriotic observances, teaching temperance, and religious observances. Usually the legislation is well intended. Not infrequently however, it is inconsistent, unenforceable, or contrary to effective learning. The issue of federal funds for education provides one of the better known examples of legislative value conflicts. It has led to strange alliances, strong public feeling, and serious misunderstandings that have not yet been dispelled. Not directly related to instruction, it still represents the problem of pressures bearing down upon education and educators, with which they must cope. Later in this chapter a more searching look is taken at criticisms of education that reflect value conflicts. But first let us examine value conflicts that teachers must resolve among their own ranks.

CURRICULUM ISSUES FOR THE EVALUATOR TO RESOLVE. For the elementary school classroom teacher and for the administrator, a number of curriculum issues have crystallized, particularly since 1920. For the most part, they are durable issues, hardy perennials that have a way of cropping up at professional meetings. The secret of their longevity (most of them are at least 20 to 30 years old) lies in the divergent values that made them become issues in the first place, and, of course, in the strength of these values in American culture. It is now time—in fact, it is past the time—to appraise these issues and to *act* with courage and intelligence as appraisal suggests. A program in elementary education worthy of continued public confidence depends upon the decisions reached. Here are typical issues:

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[18] News article in the *Columbus Dispatch,* June 14, 1950.

(1) Authoritarian *vs.* democratic school organization.
(2) The prescribed *vs.* the flexible curriculum.
(3) Promotion *vs.* failure.
(4) Departmental *vs.* nondepartmental classroom organization.
(5) Uniform *vs.* individualized instruction.
(6) The selection of prescribed materials of instruction *vs.* teacher selection of pertinent materials.
(7) Emphasis upon preparation for adult life in the future *vs.* emphasis on school living in the present.
(8) The cultural heritage as subject content *vs.* the individual teacher's insights regarding the needs and interests of a particular group of children as a basis for selecting experiences in school.
(9) Transmission of knowledge regarding things-as-they-are *vs.* an active attempt to build a better society through critical study.

At first glance, several of these issues seem almost identical, and all are closely related. It is difficult to phrase them clearly because words—the loaded words of pedaguese such as *flexible* and *individualized*—get in the way. This problem in communication demands great attention. Sometimes educators really are "in the same bed" as far as their viewpoints go, but do not know it because they are separated by a semantic bundling-board that bars agreement. Conversely, they may believe that they are together and yet be, philosophically and in practice, not even in the same house.

The nine issues typify the problems that value conflicts create for education in the elementary school; hence an examination of each is in order.

(1) Autocracy vs. *democracy.* Those who openly or covertly oppose democratic school organization often do so on the grounds that it is inefficient, that instruction takes so long that it keeps school workers from action, and that teachers as a whole lack the ability, time, and information necessary for successful participation in the administration of the school. As in all issues, there is some truth in each of these objections.

Proponents of greater democracy in education point out that, if each member of a staff participates whenever feasible in thinking through problems and matters of policy, each teacher will understand the decisions reached and his relationship to the decisions. In such a situation, he becomes more responsible and self-directive, sparing the administration the need for constant supervision of the process of carrying out autocratic policies not fully understood by the individual teacher and for which he may feel little personal responsibility. The teacher's morale is also improved since he has participated in making the decisions by which all abide.

Here is a vital question to which to apply values, keeping in mind that the conclusions accepted regarding democracy in administration are equally applicable to the teacher-pupil relationships in the classroom. Shall the school be organized democratically so that children and staff members work together cooperatively and interactively in meeting problems, or shall the administration determine policies, establish rules, and demand that teachers be personally responsible for directing children's activities? Evaluation will help to resolve the issue.

(2) Prescribed vs. *flexible curriculums*. School practices characterizing the curriculum are colored by the presence or absence of democracy in the school. Curriculum-makers with an authoritarian bent tend to accept the idea that children's experiences should be prescribed, having been planned in advance with the greatest possible care and skill. They are likely to assume that all children are entitled, as a part of their birthrights, to the heritage of knowledge built up through the years by society, and to conclude that, in the brief span of elementary school, children will acquire requisite information only if it is spread through the grades in a logical fashion.

Impressed by the importance of interest and meaning in subject matter and with the value of choices, participation, and planning, persons favoring curriculum practices associated with democracy advocate a flexible curriculum planned on a continuing basis and varying from year to year as circumstances dictate. What do the values accepted in the school suggest?

(3) Promotion vs. *failure*. All sorts of schemes have been tried out in an effort to determine how children can best be helped to learn when, as slowly maturing individuals, they continue to "fall behind" in their studies. It is argued, on the one side, that they should progress through school only as they complete specified subject goals; on the

other, that they should move forward with groups that prove socially compatible, with achievement considered largely as it effects social acceptance and social competency. The classics as a value source cause many parents, as well as teachers, to incline toward subject goals as criteria for success. Can other elements be dismissed lightly—mental health, for instance, or social maturity or a sense of security or the lack of it in the child?

(4) Departmental vs. *nondepartmental classrooms.* It is a decided oversimplification of the problem to attempt to dismiss the issue of departmentalized instruction simply by saying that it boils down to teaching children (in a nondepartmentalized classroom) *versus* teaching subjects (in a departmentalized program). Certain materials *can* be used more effectively, particularly certain teaching aids, when work is departmentalized and the subjects are prescribed. But, again, it must be asked: What are the schools seeking for children? Shall subject matter be taught as a related whole, or shall the day be compartmentalized? Is there a basic unity in effective learning experience that brooks no mechanical interference? Good curriculum design awaits a suitable answer from each school staff.

(5) Uniform vs. *individualized teaching.* Shall the school treat children "fairly and impartially" by providing similar experiences for all boys and girls, or shall the program accept the postulate that each child is unique and can be treated fairly only if the school is adjusted to the child? This is a venerable issue, characterized by general verbal agreement that individualized instruction is desirable, while mass teaching, group assignments, and standards of achievement are commonly found in practice.

Physical limitations imposed by time, space, class size, and teacher endurance are usually cited to excuse a lack of individualization in the classroom, so perhaps this is a problem rather than an issue. Whatever its status, the matter of increased individualization of instruction begs for attention.

(6) Prescription vs. *teacher selection of the materials of instruction.* Are the schools to use basal texts, or is the teacher to use a wide variety of books? Will the same instructional film be used with three or four sections of the same grade on the same day in the same building? This issue seems to relate to whether or not the teacher is sufficiently expert to assume responsibility for such choices. Can he handle the selection of teaching tools, or should it be left to the experts of the central administrative offices or, in smaller school districts, to

the principal? While it is a controversial matter in its own right, the nature of the selection and use of teaching aids of all kinds actually depends upon the way in which school workers decide to resolve the other eight issues.

(7) Future needs vs. *rich living in the present*. Many curriculums are based upon the tacit or explicit assumption that the content they contain will meet the needs of children as they grow up. "Old World Backgrounds," for instance, is a historical topic that will presumably aid the 11-year-old in grade 6 to do better at junior-year world history in high school, which will, in turn, prepare him for college classes and for interpreting the international scene as an adult. On this basis, the curriculum-maker selects subjects that will prepare children for subsequent successful adult living: preparation in mathematics, the sciences, English, the home arts, vocational agriculture, manual arts, or whatever is required by an analysis of probable adult needs.

In contrast to this approach is the curriculum that concerns itself with helping children to become the most adequate persons possible in their present environment, without particular regard for the ultimate utility of the subject matter. On this basis, it is assumed that the best preparation for adult living is adequacy at six, at seven, at eight, and so on through the years to adult maturity. It is also assumed that no curriculum-maker in an age of mass education can anticipate in the elementary school precisely which experiences will actually prepare, say, a child of 10, for adult participation 15 years later. These divergent views are sharpened when considered together with the eighth issue below.

(8) The cultural heritage vs. *the teacher's judgment in guiding functional learning*. Passive study of the cultural heritage *versus* active learning guided by the teacher is one of the more lively and crucial of the issues listed. Is the cultural heritage of value in and by itself? Is it knowledge for which the elementary school is a residuary legatee and which it is obligated to transmit intact, or shall the school look upon the heritage as of value only as it contributes to satisfying needs and interests of the child—needs and interests of which the teacher as a professionally prepared person is aware? This issue goes beyond that of the preplanned *versus* the flexible curriculum. It involves the question of whether or not teachers in public education can be charged with analyzing the potential growth of which children entering school in September of each year are capable. It further

involves the question of whether or not most teachers are willing to undertake the hard task of creative teaching.

As the school, through evaluation, reaches conclusions and makes commitments in regard to freeing the teacher to draw upon whatever subject matter he sees fit, big strides will be made in answering the questions dealing with selection of materials, individualized teaching, and a host of subordinate questions, such as those concerned with reporting progress and special activities sponsored by the school.

(9) Things-as-they-are vs. *a better society.* Over the years, especially since George Counts wrote *Dare the Schools Build a New Social Order* in the early 1930's, debate has continued regarding the role of the school in what is loosely called "social reconstruction." The discussions waxed hot during the years of depression, died down during World War II, and have blazed anew as the implications of nuclear fission and rocket-propulsion developments have been impressed on the minds of educators. There are those who feel that schools should, by examining values, seek to guide children's experiences so that boys and girls will be able to deal more effectively than many of their elders have dealt with the problems of creating a lasting peace and a stable economy in which social and economic justice are established and secure. Then there are those who concede the merit of such goals but who question either the desirability or the feasibility or both of any efforts on the part of the schools to shape society. And the issue has not been clarified by the occasional entry of partisan politics, as the proponents of one side or the other pressed teachers to join forces with organized groups advocating new or different designs for American society, life, and culture.

EVALUATION AND EDUCATIONAL CONFLICTS. Each of the nine issues urges upon the profession that teacher determine which alternative is the better or what middle ground to take. Delay in meeting the problem squarely means that public education is neglecting its responsibility during what history may record as America's most critical period since the Republic was founded. These are hortatory words, yet the course of events seems to justify them fully.

In addition to curriculum issues, the educational scene is crowded by many general problems clamoring for attention. Almost without exception, evaluative procedures can serve to reconcile the value conflicts that have resulted in both issues and problems. The problems that require appraisal constitute a long list: material problems owed to poor school housing and insufficient supplies have been increased by the mounting birth rate; methods and procedures are debated because of obscure objections and conflicting theories of learning; school–community relations fail to improve because of doubts and trepidation on the part of both parents and teachers; effective in-service education remains a novelty in thousands of school districts where there is need for better instruction of new teachers and for improvement in the abilities of those with experience. As in the case of the issues that were more elaborately explored, the problems touched on above bear out the purport of Chapter 1. The elementary curriculum needs evaluation!

■ Evaluation and Current Criticisms of Education

CRITICISMS OF EDUCATION AS EXPRESSIONS OF VALUE CONFLICTS. In addition to the need for teachers to put their "educational house" in order by bringing their professional thinking to bear on such items as the nine issues above, there is a vital need for teachers to give their most careful evaluative consideration to certain criticisms of education that have been widespread since 1950.

As implied earlier in Chapter 4, the values of some exceedingly vocal Americans prompt them to urge upon the elementary (and secondary!) school certain viewpoints, practices, and procedures that they believe to be essential if the curriculum is to serve the national welfare as they see it. The critics' writings and speeches are expressions of values that are frequently in conflict with trends in elementary curriculum development under way since the 1920's.

School workers must understand the values that motivate critics of education and weigh these values with care. Any reaction to critical analyses and derogatory statements should be governed by appraisals or reappraisals of our educational programs, based upon careful professional evaluation. In no case is it wise to resort to insubstantial "answers," "denials," and "rebuttals," which generate heat without shedding light.

Let us examine briefly some of the background of criticisms of education, then suggest how evaluation can help to diminish them.

WHY SCHOOLS HAVE BEEN ATTACKED. Three basic criticisms lie at the root of recent attacks on elementary schools:

(1) *Criticisms of so-called "modern" or "progressive" policies:* for example, competitive ABC-type grades have been eliminated to

the detriment of the educational program; children are promoted regardless of whether they have learned anything. (These comments mirror the "value" that rugged competition is essential and that boys and girls must learn, in their early years in school, how to live in a "dog-eat-dog" competitive world.)

(2) *Criticisms of newer teaching methods:* for example, children no longer can write—they merely print; instead of teaching geography and history, the schools teach children how to act on a date or at a party and call it "social studies." (These barbs suggest, insofar as the critics' value patterns are concerned, that formal academic instruction should be the major, if not the sole, concern of the school, and that newer practices—which are designed to improve learning—are actually causing "pernicious softening of the curriculum," as one caustic commentator phrased it.)

(3) *Criticisms of the school's social values:* for example, "socialist" influences are curbing the healthy, competitive spirit of youth; the schools are failing to teach moral and spiritual values; education has lost its purpose. (Here the view seems to be that, at best, the schools are subverting the values that made the United States a great nation—that "American education is so defective in theory and practice as seriously to threaten the way of life to further which this nation was founded.")

The welter of conflicting expressions of value illustrated above—viewpoints that patently complicate curriculum planning—can best be dispelled through evaluative procedures that lead to warranted conclusions with respect to how successfully the school is effecting desirable changes in children's behavior.

SUBSTANTIATING THE EFFECTIVENESS OF ELEMENTARY EDUCATION TODAY. Fortunately, an evaluation of the elementary school and its curriculum quickly substantiates the efficiency and merit of elementary education in the nation as a whole. Here is a sampling of some of the proud academic accomplishments revealed by an appraisal of elementary education. Each of the points below is documented by evaluative research.[19]

(1) At least 17 research studies have demonstrated that, from 1844 to the present, children consistently have improved academically.

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[19] For source references, see Harold G. Shane, "We Can Be Proud of the Facts," *The Nation's Schools,* 60:44-47 (September, 1957).

Despite the fact that a less-selected group of children attend elementary school than attended a century ago, today's youngsters make better scores than did their parents or grandparents when given the same tests.

(2) The test scores of 230,000 children, chosen as a representative national sample, were found to have improved 12 percent in a given grade when the same test was used. This remarkable increase was made in a single 10-year period and despite crowded schools and a shortage of teachers.

(3) The strong academic gains registered over the years were made by increasingly younger children. The average fourth grader, for example, is one full year younger today than the average fourth grader of 35 years ago!

It is through *data* derived from various evaluative procedures that teachers can dispell the cloudy arguments of those persons whose values move them to generalize (often without data or with spurious or misinterpreted data) about the deterioration of elementary education during the past 50 or 60 years. Actually, the elementary program has been characterized by appreciable academic gains, as noted above.

The charge that education lacks purpose and has neglected the moral and spiritual fiber of children is more difficult to evaluate even with the help of research, such as a recent evaluative inquiry[20] that indicated that leading texts in reading today emphasize more moral values than did *McGuffey's Readers,* which are remembered nostalgically by some as a major moral force in nineteenth-century education. Obviously, in view of the data on pupil achievement cited above, the schools have not defaulted on their academic goals. But are the schools—elementary and secondary—doing any more than transmitting that which is excellent and useful in our cultural heritage? Surely the evidence is sufficient to justify a resounding "Yes."

The products of our educational system are, with each passing decade, demonstrating our growing maturity as a nation. They are making real the American Dream that human beings can live together with dignity and self-respect. They are proving that we can achieve at least a measure of earned security through fair opportunities to earn a living by laboring with mind and hand.

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[20] Paul S. Anderson, "McGuffey Vs. the Moderns in Character Training," *Phi Delta Kappan,* 38:53-58 (November, 1956).

In 50 years, the integrity of our country has stood firm through many harsh tests. In depression and war the graduates of our schools and colleges have proved that, while a few of us may be petty or mean, the average American is someone to be proud of. He has shown vision that lifts him above himself. He is friendly and basically respectful to others, but he has proved that he can and will fight for the things in which he believes in every quarter of the globe. The typical product of our educational system may occasionally be misdirected or misinformed, but in the long run he stands for that which proves to be right.

These qualities are no happy accident. They have been fostered and strengthened by the objectives of our schools, which, like home and church, are the respository of the ideals that make up the American Dream of a better world. Truly, we have more often succeeded than failed as a people, and a substantial measure of credit for this success is owed to the effectiveness of our public education.

One word in closing. There *are* certain genuine lacks and problems in elementary education *that merit criticism!* We must not let our pride and enthusiasm for the accomplishments of elementary education blind us to classes that are too large, psychological and physical pressures that harm teachers and children alike, substandard school housing, budgets that are inadequate, and salaries that generally remain below a level sufficient to attract and to retain the high type of intelligent and cheerfully dedicated persons we need to staff our schools.

■ Summary

In Chapter 4, a serious effort was made to show how the evaluative process, simple in itself, is complicated by the many value sources that have permeated American life. As we contemplate the matter of values and conflicts among values, we well may ask with a certain long-dead Roman governor, "What is Truth?". How may we thread the labyrinth of values and come out with a sense of purpose, a sense of direction, and plans for intelligent procedures that will help children—and ourselves—build and live in the kind of world millions of people all over the face of the earth are seeking with quiet desperation? How may we settle old issues, how confront new ones with confidence?

Few truths are any longer self-evident and, in the technologically complex world of today, these few seem to fare ever more poorly. Would John Milton in mid-twentieth century still write, "Truth is as impossible to be soiled by any outward touch as the sunbeam"? One can but wonder.

It is in seeking answers to such questions that we find hope through the evaluative process. No miracle worker, evaluation promises to free human intelligence for rational problem-solving in elementary education. No more can be asked of any device. With good intent and honest, persistent effort, the toughest of educational problems, the most involved issues and misconceptions, can be dispelled.

Chapter 4 also reviewed some of the major professional issues that educators need to resolve through evaluation. The concluding pages pointed out how the values of certain critics of education are in conflict with desirable practices and suggested that evaluative processes and research provide excellent means of exploding certain baseless charges made about the "deterioration" of elementary education.

Discussion Questions and Suggested Activities

1. What are some of the value patterns, expressed as folkways or mores, that seem to be of paramount importance in the community in which you live?

2. In cooperation with others in the class, attempt to analyze frankly some of the value patterns that govern your reactions and general behavior. You may wish to discuss the attitudes of class members with respect to a controversial question (for example, religious education) and attempt to identify the sources of the values brought into play.

3. What do *your* values suggest with respect to an elementary school program for the academically gifted child? For the slow achiever?

4. Review some of the commentaries, critical of education, that appear from time to time in magazines and newspapers. What seem to be the educational values that motivate each writer? What are some of the educational values that seem to underlie articles favorable to the work of the schools? Compare the authors' backgrounds.

Selected and Annotated Readings

1. Berkson, I. B., *The Ideal and the Community*. New York: Harper & Bros., 1958.

   A stimulating book, but one for the mature student with some background in educational philosophy. Berkson, in the first 104 pages, examines critically the views of important writers and thinkers who have done much to shape liberal educational concepts.

2. Hutchins, Robert M., *The Conflict in Education.* New York: Harper & Bros., 1953.

   The author reviews his interpretations of several "prevailing theories or doctrines of education" and appraises their relative merits. This is a volume to be read analytically by a person who has given careful thought to his personal/educational values and can interact thoughtfully with Dr. Hutchins' ideas.

3. National Education Association, "Ten Criticisms of Public Education," *Research Bulletin,* 35:4 (December, 1957).

   A thoroughly documented review of ten charges made against public education accompanied by data which show the record many schools have made.

5

Applying Evaluative Processes and Research to Curricular and Instructional Problems in the Elementary School

ONE test of the worth of an idea in the field of elementary education is its success as a guide to action in attaining desired results. The evaluative process, a relatively untried idea in many elementary schools, must meet this test.

The present chapter is designed to show that evaluation is "applied common sense"; that it is feasible to apply our educational values methodically to the reasoned solution of curricular and instructional problems. The first part of the chapter suggests how evaluative processes may be used by a local staff. The remainder examines the implications of evaluation for use within the individual classroom.

■ Using Evaluative Processes in the Local School Situation

The "right" kind of evaluative procedures to use in a given school system vary from one school to another because each educational situation is unique—different in various ways from all other schools. In some buildings there are long-established traditions of cooperative endeavor, while in others the staff may be just getting acquainted, as in a newly opened school. Again, a newly appointed principal may be inexperienced in providing a milieu conducive to cooperative approaches to leadership, or overcrowded conditions may make it necessary to put children on shifts from 8:00 A.M. to 12:00 noon, and from 12:30 P.M. until 4:30 P.M., thus creating the problem of coordinating two separate faculty groups who use the same classroom facilities. Patently, one cannot prescribe a way of applying evaluative procedures and research that fits all schools equally well. At the same time, a variety of procedures can be mentioned from among which local staffs may select ways of appraising and improving the curriculum.

APPLYING EVALUATION IN ORDER TO IMPROVE THE CURRICULUM. One basic and well-established procedure in improving the curriculum and instruction involves the classical or "pure" research processes originally taken over from the physical and biological sciences. This approach involves planning and executing research with, for instance, control groups and the myriad of research tools and techniques to be reviewed in Chapter 6. Here, however, we are concerned with local program improvement that utilizes such tools and techniques as means to better curricular practices. This takes us into the realm of procedures for applying values cooperatively: the interactive evaluative process of curriculum change, which is now often called *functional research, action research,* or *cooperative research.*

And here we come to a basic difference between evaluation and measurement-and-testing *per se*. As Palmer phrased it: "Measurement says let us measure a few things accurately. Evaluation says let us neglect nothing, using accurate measurement for those goals for which we have scales, but omitting no educational goal merely because we still have no scales for it."[1]

▪ Designing Evaluative Processes for Use in Local Program Improvement

HOW DOES LOCAL SCHOOL EVALUATION BEGIN? It has been stated that evaluation is a continuous process. If this is true, how can a staff initiate appraisal activity in the first place? The explanation lies in word meaning. Everyone evaluates all of the time—that is, everyone applies his values to making decisions: deciding whether Tommy's work is satisfactory or determining the day and hour when a field trip will lend most meaning to a classroom study of animals or pioneer life. This is done with reference to personal criteria, whether these criteria are recognized or not. In this sense evaluation is continuous. At the same time, this quality of continuity in valuing does not preclude the undertaking of an organized appraisal project by a school staff, a project that is a coordinated and group-directed expression of the evaluating already being done by individual members of the teaching corps. Once begun, as will be shown later, evaluation should be self-perpetuating and therefore continuous. With the hope that this explanation is for the moment satisfactory, attention is now directed toward the initiation of a program of *planned* evaluation, along with a reminder that the program described is based upon a real venture.

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[1] R. Roderick Palmer, "Evaluation: A Reappraisal," *Educational Research Bulletin* (College of Education, The Ohio State University), 36:137-143; 155 (Apr. 10, 1957).

Evaluation in a school situation begins when the teachers sense the existence of a problem that can be isolated and described. Let us assume that a school staff is concerned because it feels that the general program of education lacks clearly defined goals, and that objectives need to be redefined and translated into better practices.

Once agreement is reached that this is a significant problem, the second step must be taken: deciding what values the staff considers to be important. In a practical situation, this may take the form of a question: "What is good about what we are doing, and what needs to be improved?" When such a discussion is begun, the appraisal procedure may be considered well launched.

THE IMPORTANCE OF GENERAL PARTICIPATION. It is desirable at this point to re-emphasize the importance of participation *from the outset* by all persons on the school staff. Each should share in deciding whether or not an apparent problem is genuinely significant, and each should participate exploring the values to which the staff looks for direction. Participation by parents, children, and perhaps other citizens in the community is also highly desirable at some stage in the process.

With complete and willing participation, a feeling of "we-ness" is likely to develop. Also, through group processes real group understanding and rapport emerge. Terminology can be controlled more effectively, and the specific meanings with which words and phrases become endowed are better understood. Most important is the fact that when a group creates an idea or a procedure it becomes the personal possession of each participant; this increases the likelihood that each will try his best to carry out or implement these ideas or procedures. Finally, having developed them, every member of the group can be expected to have a sufficient grasp of the ideas to act intelligently and independently as the appraisal proceeds.

DEVELOPING CRITERIA FOR USE IN THE EVALUATIVE PROCESS. The clarification of values is a frank and intimate experience, unique to each group. Deciding "what is good about our work" and "what might we do more effectively" requires mutual respect, candor, and cooperation. Suggestions need to be accepted in good faith, and the evaluators must gradually free themselves of the restraints that self-consciousness and insecurity impose. This takes much time. Furthermore, the setting in which discussion occurs is important. Comfortable surroundings, perhaps a cup of coffee, freedom to smoke—an environment conducive to relaxed thinking—are helpful. Above all, a fresh and relaxed group of participants is requisite. Hurried meetings at the end of a teaching day should be avoided whenever possible.

To return to the development of the steps in evaluation in the particular situation being constructed, the preparation of criteria to guide action is the third step, following the selection of a problem and the exploration of values involved. These criteria are statements of values to be sought with and for children through significant school experiences: guide lines to be followed in improving the curriculum in such a way that socially desirable changes will occur in the behavior of boys and girls.

Representative of criteria that might be developed by any staff for directing school practices are the following four:[2]

I. The basic purpose of the educational program is to develop in children an understanding of (1) the substance of democracy, (2) ability to employ democratic procedures, and (3) an aggressive loyalty to democratic values.

II. The good educational program creates in each child a sense of security and awareness of personal adequacy that will enable him to work successfully with others in a group.

III. The effective school program seeks to provide children with experience in sensing and attacking problems, appropriate to their age and maturity, so that their actions are based on creative thinking, on enlightened self-interest, and on a scientific approach to problem-solving.

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[2] These criteria, and much of the illustrative material used below, are genuine in the sense that they were developed in cooperation with the staffs of four public elementary schools during experimentation in curriculum revision through the use of evaluative procedures. They were not merely contrived by the writers.

IV. The school shall help children acquire meaningful knowledge and skills that promise to function in helping children to live democratically, to become adequate as persons, and to attack problems of living at increasingly higher levels of maturity: in short, talents that will make children useful to themselves and to society.

Once agreement is reached with regard to criteria such as these, evaluators must apply common sense to the question of what behavior children should display in order to satisfy such criteria. What do the statements mean? Each must be interpreted, and the interpretation accepted by the school staff.

INTERPRETING CRITERIA AND EXPRESSING THEM IN TERMS OF CHILDREN'S BEHAVIOR. The component parts of a criterion need to be isolated in the process of translating them into behavioral terms. Each of the four criteria above will be analyzed, the first three through the use of two columns. One column proposes what the criterion means; the other, what kind of behavior it demands of children if it is to be satisfied.[3]

INTERPRETATION	BEHAVIOR TO BE SOUGHT
I. *Building democratic skills, insights, and loyalties means that the school will seek:*	*Behavior consistent with this goal will be characteristic of the child who:*
To help the child identify his welfare with the welfare of others.	WORKS cooperatively with others in a group.
To cultivate in children increasing awareness of problems created by social, political, economic and technological changes.	GIVES service, progressing from responding to requests to voluntarily assuming tasks.
To keep prejudices to a minimum.	SHARES in reaching decisions that affect the group and ASSUMES a fair portion of responsibility for seeing them through.

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[3] Note how values to be sought with children, presented on pp. 36-46, are incorporated in these lists. For a more specialized illustration of the way in which values expressed as criteria may be translated into behavioral terms, see Appendix B. This presents an analysis of the behaviors and knowledge required for good citizenship, and was drafted by the Working Committee on Citizenship of the National Council for the Social Studies, NEA.

INTERPRETATION	BEHAVIOR TO BE SOUGHT
To develop appreciation for others and respect for their rights.	SHARES possessions and experiences that aid the group to achieve its purposes.
To develop and encourage responsible freedom. (The child is free to the degree that he is self-responsible.)	CONTRIBUTES to solving group problems by sharing ideas and materials.
To recognize and develop leadership as a group function. (As each person contributes to the successful solution of a common problem, he is for that ephemeral period exercising leadership.)	RESPONDS with increased understanding to other children as he develops insights into the causes of their behavior.
	ABIDES by majority decisions.
To cultivate the disposition to act courageously in accordance with one's beliefs.	SHOWS respect for the right of individuals to express minority opinions.
To develop convictions that strengthen democratic values.	EXPRESSES appreciation for the contributions of others.
To improve the community through the operation of the school program.	EXPRESSES satisfaction in the accomplishments of the group of which he is a part.
To help children recognize as good those elements in the culture that are democratic.	DOES unsupervised work with increasing success.
To provide children with opportunities for experiences in the organization and techniques of democratic social control.	APPRAISES new developments in terms of their inherent values rather than in terms of traditional value patterns.
To encourage social inventiveness in meeting the problems facing the culture.	SHOWS concern about ways of improving the conditions under which people live and work together in groups (in family, classroom, neighborhood, and community groups) and grows toward the point at which he INITIATES efforts to bring about such improvements.

INTERPRETATION	BEHAVIOR TO BE SOUGHT
To develop faith in the aggregate ability of people to move toward socially desirable, democratic goals.	INITIATES group discussions of problems of common concern.
II. *To help children find a sense of security based on personal adequacy, the school should seek:*	*Behavior consistent with this goal will be characteristic of the child who:*
To aid the development of emotional and social maturity.	WORKS independently with increasing success and decreasing supervision.
To foster the achievement of a sense of security through self-confidence.	ASSUMES personal responsibility for his behavior and his possessions.
To promote the attainment of vigorous physical health and playground skills that promote group acceptance.	ADAPTS easily to necessary changes in routine. PROGRESSES toward consistent behavior in terms of the values that he accepts.
To develop in the child sufficient stability so that he will accept other people's achievements and their rights to opinions and, at the same time, maintain his own integrity.	PROGRESSES from self-interest behavior to mature, democratic interaction.
To encourage and provide opportunity for sensitive expression of vital experiences.	MAINTAINS, or quickly REGAINS, equilibrium when overstimulated or in a crisis situation.
To develop consciousness of purpose.	ACCEPTS and WELCOMES constructive criticism.
To develop the ability to use energy efficiently in terms of the child's purposes.	OFFERS pertinent suggestions to help others.
To encourage responsibility.	PARTICIPATES in physical activities acceptable to himself and to the group.
To build courage to the extent that the child will act in accordance with his convictions.	RECONCILES individual desires and preferences to group decisions.

INTERPRETATION	BEHAVIOR TO BE SOUGHT
To aid the child in developing effective means of dealing with his peers.	MAKES quantitative and qualitative gains in expressing experience as through an increasing variety of media.
III. *The school helping children approach problems creatively and scientifically strives:*	*Behavior which suggests that a child is learning to think clearly and critically is occurring when he:*
To develop inquiring minds through the encouragement of questions and a subsequent search for answers.	SHOWS awareness of problems. ASKS thoughtful questions.
To develop skill in recognizing and defining a problem.	RESERVES judgment until evidence is weighed.
To develop skill in making suggestions regarding possible solutions to a problem (*i.e.,* formulating hypotheses), at the same time reserving final judgment while gathering and checking data.	SEEKS facts relevant to problems. USES discrimination in selecting source material on which to base judgment.
To develop appreciation for the necessity to use facts as bases for reaching judgments.	CHANGES opinions in the light of more objective, valid, and reliable evidence than he had when these opinions originally were formed.
To evolve and to use methods for assembling, testing, and continually appraising evidence:	USES evidence to find the best apparent solutions to problems.
(a) consulting reliable sources (b) discrimination between fact and opinion (c) discerning theories from scientific laws (d) detecting the difference between symbols and the realities for which they stand.	ACTS in accordance with scientifically drawn conclusions.
To use evidence to find the best apparent solution to a problem.	
To act in accordance with scientifically drawn conclusions.	

IV. The fourth criterion proposed for an improved education program has to do with the acquisition of socially useful skills and knowledges to be pursued through curriculum revision. Unlike the three preceding criteria, this fourth measure cannot be broken down into lines of print. The meaning of this criterion is found in the curriculum changes demanded by the first three criteria.

As the child becomes oriented to democracy, as he becomes adequate as a person, and as he develops a measure of ability to solve problems creatively, subject matter is acquired cumulatively and functionally and is *organized by him* as he works to satisfy individual and group purposes. In other words, the fourth criterion is concerned with the experiences needed to satisfy the first three and becomes invested with meaning as teacher and children together evolve the program of school living demanded if the behaviors sought are to be realized.

The interpretations of the criteria and behaviors here proposed imply the need for a flexible, emerging curriculum rather than one completely planned in advance. This is a basic premise in the evaluative approach to curriculum-making in the elementary school. The interpretations also recognize that the *real* curriculum is not a printed bulletin or handbook but a process occurring inside the child as he creates his own meanings for the environment of which he is a part. (Also cf. Chapter 8, pp. 178-180.)

Thus far the efforts of a school staff to apply evaluative procedures have been traced through the three steps of isolating a problem, establishing criteria with which to judge progress made in solving the problem, and making the criteria meaningful by deciding on the behaviors to be fostered in children in the process of satisfying the demands of the criteria.

In the theoretical example given, we now assume that the staff has agreed upon the kinds of behavior consistent with its educational values. Next comes the tasks of planning how to promote and study the behavior, gathering data on behavioral change in children, analyzing the changes, and modifying the curriculum—environment in the light of the evidence accumulated. Evaluative instruments listed in Chapter 6 are among those that may be used, and the evaluative process repeats itself as values and common sense suggest. New goals are set up as needed, behavior is subjected to continuing analysis, and further refinements in the methods of teaching are made.

All this may sound simple, but it presupposes professional know-how on the part of the staff. This includes both a knowledge of the ways children learn and considerable skill in working with children.

Neither of these qualities is too much to expect of the teacher. To make this point clear, the next section deals with what is known about learning and the meaning of this knowledge for classroom methods.

▫ Teaching Methods and the Nature of Learning

Reference has been made to evaluation as applied common sense, and it is time to explain the term as employed here. *Common sense* is used to connote good judgment on the part of the teacher in his work with children—judgment based on a knowledge of learning and of appraising a possible learning experience in order to determine whether or not it is consistent (1) with good learning and (2) with the goals or criteria cooperatively established by the staff to guide the school curriculum.

Values to be sought with and for children, previously specified in Chapter 2, and the criteria and behaviors proposed immediately above are based upon the philosophical and psychological beliefs and convictions of the writers. The philosophy seems clearly manifest, the psychology less so. Here are some of the psychological bases for these values.

EVALUATION AND THE NATURE OF LEARNING AND CHILD DEVELOPMENT. A sound program of evaluation must be based upon sound concepts of learning; otherwise it is foredoomed to failure. If the statement is made that "behavior consistent with the goal of democratic skills, insights, and loyalties is found in the child who 'SHARES in reaching decisions that affect the group and ASSUMES a fair portion of responsibility for seeing them through,' " there needs to be a reason for knowing that this behavior *will* promote democratic learnings. Characteristics of the learning process that support the values and concomitant behaviors proposed are given below.[4]

Learning is inherently personal and creative. Learning is a creative process for each child through which he senses new relationships. The teacher does not really "teach" at all. He helps children to learn, to find—each in his own way—the experiences that help him understand and cope with the world he sees through *his* eyes.

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[4] The reader is also referred to Marian E. Breckenridge and E. Lee Vincent, *Child Development: Physical and Psychological Growth through the School Years* (Philadelphia: W. B. Saunders Co., 1949). Note their unusual bibliography of over 1000 items. See also Willard C. Olson, *Child Development* (Boston: D. C. Heath & Co., 1949), Ch. V; Leonard Carmichael, ed., *Manual of Child Psychology* (New York: John Wiley & Sons, 1946), Ch. IX, "The Measurement of Mental Growth in Childhood"; R. J. Havighurst, *Human Development and Education* (New York: Longmans, Green & Co., 1953); Elizabeth Hurlock, *Child Development* (New York: McGraw-Hill Book Co., 1956); Millie Almy, *Child Development* (New York: Henry Holt & Co., 1955).

Learning occurs in a social setting. No one can learn by himself alone any more than he can live only to himself alone. He is a part of a culture, of organized groups that surround him from birth. What he learns is conditioned and partly controlled by the social processes in the environment.

Learning is a dynamic and integrating experience. Active physical energy is involved in learning, hence the common use of *dynamic* in characterizing it. Constructive learning sought by good elementary schools is also integrative. The experiences of children knit their personalities together if they are integrative in nature. It is worth mentioning that children, not subjects, are integrated. Subject matter may be correlated or taught in relationship, but there are no integrat*ed* curricula, psychologically speaking. There are only integrat*ing* curricula that help to build integrated personalities in children.

Significant learning builds self-direction and self-control. When learning is taking place on a fully meaningful level, purpose and interest are present, helping the child decide what activities will serve to satisfy them. This is self-direction. Self-control accompanies it. The interested child with purposes he has accepted and into which he has insights is not easily diverted, and he poses few or none of the problems of control that mar classroom atmospheres in schools where children follow directions more understandable to the teacher than to themselves.[5]

These generalizations regarding learning help to place in a more understandable context the methods or procedures that are integral with good classroom practices. They point toward the goals for education and satisfy the criteria established for gauging the extent to which the school is succeeding in its avowed purposes.

EFFECTIVE EVALUATION AND GOOD CLASSROOM METHODS. Those methods of instruction that reinforce the working of the evaluative process, and that lend themselves to the kind of changes in psychological behavior which have been discussed, are vital because on them depends progress toward satisfying criteria for a good program. The school seeks to change behavior in desirable ways. It can do so only if classroom methods are designed to change behavior. Let us now make some suggestions regarding suitable methods.

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[5] See Arthur T. Jersild and Ruth J. Tasch, *Children's Interests and What They Suggest for Education* (New York: Bureau of Publications, Teachers College, Columbia University, 1949), Ch. XII. Also, see Harold G. Shane, "Children's Interests: How Do They Affect the Curriculum?" *NEA Journal,* 46:237-239 (April, 1957).

Method and the direction of learning. In the classroom of the teacher with the professional know-how required for successful evaluation, learning experiences are initiated and directed cooperatively by the teacher and the children. The teacher constantly appraises the progress of the work in terms of the criteria that he and his fellow teachers accept.

Method and social change. The teacher guides the development of the classroom enterprise by using methods that show careful consideration for children's growth toward understanding of the social environment and its improvement in the interest and welfare of all. As a part of his responsibility to children, the teacher should help children to acquire the habit of judging proposed actions by what they do to other people, and to appreciate policies that are mutually agreeable to the group. In the long run, protection of the social institutions that Americans respect and want to preserve depends upon strengthening these institutions as times change, so that they meet changed conditions with vigor. Methods in the elementary school should serve to further this end.[6]

Method and freedom. Methods in the classroom should encourage constructive freedom and discourage its abuse.[7] This calls into play procedures that supply opportunities for children to initiate, plan, execute, and appraise ideas; to express individuality; daily discussion periods, deliberately placing children in positions where they are responsible for themselves, and a flexible policy regarding subject matter.[8]

Method and curriculum content. The curriculum should consist of integrating experiences that approximate real living at the child's level of maturity, as opposed to chronologically organized subject matter selected by adults alone. Each learner should organize *his* subject matter cumulatively and functionally, but with the teacher retaining responsibility for the guidance of the child's over-all development. The curriculum as proposed does not permit children willfully to act as they please. It does, however, encourage a creative approach to learning by both teacher and children. This presupposes methods that recognize interest and purpose, stimulate readiness, encourage discussion, and utilize the immediate environment as a source of subject matter.

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[6] John Dollard, *et al., Frustration and Aggression* (New Haven: Yale University Press, 1939).

[7] Ronald Lippitt, "An Experimental Study of Effects of Democratic and Authoritarian Group Atmospheres," *University of Iowa Studies in Child Welfare,* 16:3 (1940).

[8] Leonard Carmichael, ed., *op. cit.; cf.* Ch. XVI by Kurt Lewin.

Method and psychological development. To insure optimal psychological development, learning should be active, dynamic, and individualized. Each child should be motivated to sense problems, develop purposes, and seek answers based on the development of accurate personal meanings and insights. Methods requisite for proper psychological development further demand freedom to inquire critically, and to find the creative solutions to problems of personal living suggested immediately above with respect to the elementary curriculum. Of necessity, these methods should be concerned with the total environment of the child and its impact on his whole personality.

Method and drill. Many methods depend upon drill as a mainstay. The nature of the learning process indicates that the child should be helped to meet new situations by keeping drill or practice secondary to meanings, and that his school experiences should be made to conform to the level of his maturity. Practice or drill is important—but *only* when the reason for practice is understood, when it is not only accepted but welcomed by the child, and when it is developmentally appropriate.

▪ Selecting Subject Matter That Is Consistent with Sound Values

Criteria for directing desired changes in the behavior of children, a knowledge of how learning occurs, and suitable teaching methods are not by themselves sufficient resources or tools for the classroom teacher. There remains a need for some basis for selecting experiences with children. What enterprises and activities among the infinite number that might be developed during a school year shall become a group's subject matter?

The fourth criterion advanced for use in the evaluative process (see p. 112) was concerned with the acquisition of socially useful skills and knowledges. We pointed out that the successful satisfaction of the first three criteria for use in the evaluative process depended upon the way in which the fourth was implemented. Seven bases are now proposed as a practical means of deciding whether or not a learning experience promises to be a profitable one for children.

SEVEN BASES FOR SELECTING ELEMENTARY SCHOOL CURRICULUM CONTENT. When deciding upon the fitness of an enterprise the teacher should ascertain that:

(1) It is consistent with the goals accepted by the staff and with the cultural environment unique to the school that the children attend.
(2) It is consonant with the teacher's knowledge of the developmental nature and needs of children and will provide for the range of individual differences in the group.
(3) It lends itself to desirable methods (such as are proposed above) upon which the staff has reached agreement.
(4) It promises to promote greater understanding of the immediate community on the part of the children and to make the community a better place in which to live.
(5) It promises to help each child, at his present level of maturity, to develop active and positive attitudes toward socially important needs or lacks in his widening environment (for example, the need to conserve human and natural resources or respect for the dignity and importance of work of all kinds).
(6) It is feasible to plan and develop the enterprise in the light of material limitations imposed by time, space, and supplies available and to make learning rich and satisfying to each child, regardless of his apparent ability.
(7) It is evident that there are opportunities for worth-while direct experiences in the physical environment of the school and community.

To clarify the use of these bases in selecting subject matter, we must mention that all seven may not apply fully to all of the possible learning experiences that a teacher might chart with his group; few if any enterprises are so versatile or so multipotential. However, the more suitable the enterprise, the more adequate it should prove when the seven bases for selecting curriculum content are used to test it. As a minimum, all subject matter should be consistent with the school's goals and with principles of child development, lend itself to good methods, and meet the test of physical limitations.

THE GUIDANCE FUNCTION OF THE TEACHER IN SELECTING CONTENT. The seven bases for deciding upon content point to the importance of the teacher as a guide of children's experiences in elementary education. What children do never should be left to chance; their actions should be the result of the teacher's evaluation of the possibilities for wholesome child development in each of the several enterprises from among which he may select one for study by the children. In the classroom, the guidance role of the teacher has two major aspects: the guidance of *individual* growth and development and the guidance of *group* learnings. These two functions of the teacher are intimately interrelated but, at the same time, separate and distinct. The teacher's role as a guide, as the term is used here, refers to group guidance.

In the continuing process of employing evaluative procedures to shape a curriculum that improves children's psychological behavior, the teacher-guide analyzes with children the potentialities of each of the several lines of study and endeavor that suggest themselves when an enterprise is about to be selected. With seven-year-olds, possibilities for work might include a farm study, a school post office or grocery store, or exploration of how animals and plants respond to seasonal changes. In confronting the problem of choice among those alternatives, the competent teacher seeks to help children select the one that most fully satisfies each of the seven bases. In the procedure followed, the children will, through the interest they express, help to determine what is done; but final authority resides in the teacher.

In inland Wapakoneta, Ohio, or Flagstaff, Arizona, or Waukesha, Wisconsin, an aggressive child recently returned from New York City may be eager to learn more about the ocean liners he saw in the port and may infect other children with his enthusiasm. It does not necessarily follow that the teacher should assume that "the group has a fine interest in ships" and plan to spend six weeks learning about them and the foreign lands from which they come. The "fine group interest" may be merely ephemeral curiosity resulting from a single child's effort to promote *his* interest. At any rate, in inland towns the likelihood that seven-year-olds could sustain interest in and profit from a prolonged study of ships is slight. There is little that is available in such places to provide firsthand experience with large seaports, big vessels, or exotic lands overseas. A story or two, some conversation, and bulletin-board space for ship pictures usually will satisfy this transient type of interest.

Responsibility must remain the teacher's when final decisions are made regarding classroom projects if good learnings are to be kept at full tide. The teacher doing a good job will not use this point to rationalize dictatorial planning and direction of children's activities, however. Democracy in education, the nature of the learning process, the ripening, self-directed growth of the child—all these require honest, unforced participation. Effective guidance by the teacher strikes a balance between dictated and unplanned curriculums, both of which the elementary school must shun if its program is to be of real value in building citizenship skills in the world of today.

MISCONCEPTIONS OF "GUIDANCE" IN EDUCATION. No discussion of content in the elementary school is adequate, in view of current confusion about planning with children, without reference to the time-worn criticism that in "modern" schools too many children "do as they please" in the classroom. Often John Dewey, the philosopher who so greatly influenced education, is incorrectly credited as the source of soft pedagogical practices. Actually, Dewey was precise in pointing out that children cannot be expected to direct the course of their learning. His statement in *Experience and Education* is explicit and illustrates the responsibility of the teacher in guilding children's learning. Dewey stated that:

> The greater maturity of experience which should belong to the adult as educator puts him in a position to evaluate each experience of the young in a way in which the one having the less mature experience cannot do. It is then the business of the educator to see in what direction an experience is heading. *There is no point in his being more mature if, instead of using his greater insight to help organize the condition of the experience of the immature, he throws away his insight.*[9]

In short, our schools should be permissive, should recognize the powerful influence of purpose and interest, but they must also reflect a design and direction that gives depth and meaning to learning.

A classroom teacher's verses capture in vivid metaphor the flavor of teacher guidance:

I must not interfere with any child,
    I have been told,
To bend his will to mind or try
    To shape him in some mould
Of thought.
Naturally as a flower he must unfold.
Yet flowers have the discipline
    Of wind and rain—
And though I know it gives
    The gardener pain,
I've seen him use his pruning shears
    To gain
More strength and beauty for a blossom bright.
    And he would do whatever he

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[9] John Dewey, *Experience and Education* (New York: The Macmillan Co., 1938). P. 31 f. (Italics not in the original.)

Thought right
    To save his flowers from
A deadening blight.
    I do not know, yet it *does*
Seem to me
    That only weeds unfold
Just naturally.

Alice Jay Judd

Children, one may conclude, do not unfold "just naturally." They cannot adequately fathom, without guidance, the heritage of man's slow progress from the eras of prehistory to the present age. And the truly fine teacher, with consummate skill, guides children in ways consistent with their developmental nature and the values our society has come to prize.

▪ The Child's Own Evaluations

When evaluation was interpreted in Chapter 3, it was shown that the process involved two interdependent concepts: one concerned with the school workers' efforts to guide and improve behavioral change; the other related to a process occurring within the children themselves, through which they respond to the psychological interpretations they make of the environment with which they interact. Although consideration has been given to the teacher's use of evaluation, little has thus far been said about children.

Children, like adults, are involved in both evaluative concepts. This implies (1) that they must be given opportunities to appraise ways in which they can achieve their purposes (changing their behavior in the process), and (2) that a good classroom is one in which children, "inside their skins," are interpreting and interacting with their environments in a manner congruent with the school's objectives. The first point is to a considerable extent within the control of the teacher. As to the second, he can only hope that the "private world" of each child's inner being is becoming the kind of world that will bring the citizenship goals of American culture closer to reality through the lives the children are leading and will lead as mature adults. The inability of anyone actually to reach the inner being of the child does not, by the way, proscribe shrewd judgments on the part of the teacher as to the school's success in shaping this inner being.

IMPLICATIONS FOR CLASSROOM PRACTICES. Several commonsense procedures can be used to help children become familiar with the evaluative approach and to improve the child's psychologically private self. One such procedure is the creation of a classroom climate that not merely tolerates but actively encourages evaluation by children. Both the citizenship goals and suggestions regarding suitable methods discussed earlier foreshadowed this. The goals can be attained best when the atmosphere is conducive to their realization in the schools, and when methods of teaching consistent with effective learning are integral with valuing that is done by children.

Careful attention to building psychological readiness for all experiences, rather than academic learning alone, is at least as important as readiness for reading and fully as complex.[10] The concept of readiness is related to maturity, a level of development at which the child can successfully undertake a new experience.

The likelihood that a child will appraise the world about him in a fashion in keeping with the school's objectives is further increased when there is a chance for him to identify himself with these goals. This concept of identification is analogous to readiness, but it has a stronger emotional coloration. The child must be helped to feel how his experiences are important to him and why he must contribute to their successful development. He must sense his personal relationship to the learning process.

The use of instruments and techniques that focus the child's attention upon his valuing also are important. It is desirable that he be led to develop intellectual insights into the process of appraising proposed actions and outcomes, and the probable consequences of the actions to himself and to others. Talking over proposed lines of procedure with children, helping them to decide what best serves group purposes, and to accept personal responsibility for achieving them are important techniques in shaping their inner development as thinking individuals. Even the youngest children in public schools can be guided to develop criteria for use in meeting problems and making decisions.

Classroom experiences that have a therapeutic value in impressing children's personalities also come to mind when evaluating with children is discussed. Even as in play therapy, sociodrama and psychodrama, evaluative techniques in the classroom aid boys and girls to work out solutions to situations vexing or troubling them.

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[10] Gertrude Hildreth, *Readiness for School Beginners* (New York: World Book Co., 1950), Chs. III and IV.

■ Lay Participation in Evaluation

THE IMPORTANCE OF LAY PARTICIPATION. In recent years there has been a distinct increase in lay participation in school activities of every description, including curriculum appraisal. In any attempt to evaluate the elementary school, it is particularly desirable and wholesome to have parent and general lay participation. The reasons for such participation are similar to the reasons that support participation by all members of the faculty: there is greater understanding of the program; many ideas are shared; greater support for curriculum change is likely; and so on. Also, in a literal sense, the schools belong to the great lay public, and the public's values should be considered when the program is appraised and modified.

SOME CAUTIONS ABOUT LAY PARTICIPATION. Despite the obvious merit of community participation, merit that the writers in no way belittle, school workers engaged in evaluation should observe certain cautions.

(1) Have a clarified set of values before working directly with parents in program appraisal. It is disconcerting to the lay public to be confronted by a staff of professional educators that appears to be muddled or concealing ignorance by a merely pretended erudition.

(2) If possible, have a plan of appraisal to share with representatives of the parent and lay groups. They expect professionals in the schools to know what they are about.

(3) Don't expect members of lay committees to rubberstamp plans that the staff has already settled. It is not only fraudulent but insulting to lead parent and lay readers to believe that their views are sought and then let them discover that the school staff "has all the answers" and merely wants their endorsement for a given proposal.

(4) Think professionally with lay groups, but, as Aristotle advised, "speak in the language of the people," not in phrases loaded with pedaguese.

(5) Be prepared to deal with laymen who may be hostile or who have an ax to grind. Recognize that disagreement from a parent doesn't connote disloyalty to the schools. Also, recognize that the staff may need to face courageously an occasional malicious or unstable critic within the framework of group processes.

(6) Give thought to the procedure to be followed in inviting given lay participants. What is the level of their potential contribution? Who shall be invited to represent whom in the community?

(7) Recognize that there is a time problem in evaluation and particularly in significant curriculum change. Many parents are not free to work on a committee 100 or even 60 hours during an academic year. How can meaningful sharing be achieved without completely absorbing busy laymen to too great a degree?

(8) Try to avoid placing yourself in a position in which a lay group usurps certain educational decisions that are basically professional decisions. Participation should be, in the last analysis, *advisory* rather than *directive*—else a faculty may lose its professional responsibilities and prerogatives.

■ Summary

Chapter 5 explicitly traced the various initial steps through which the evaluative process might move in a local school situation: its beginnings, the development of criteria for gauging progress toward cooperatively designed goals, and the translation of goals into behavior to be sought in children.

It was also pointed out that evaluation is concerned with and its effectiveness governed by the insight of teachers who utilize it. Particular heed was given to the teacher's need for understanding the nature of learning and the implications of child development for instructional practice—and to select learning experiences and to guide children accordingly in the classroom. The fact that children themselves make evaluations was also stressed.

The chapter also treated the importance of, and some cautions to be observed in, cooperation with lay groups in evaluating elementary school programs.

Implicit throughout the chapter was the belief that elementary education needs to be improved significantly and quickly by using the knowledge we have *now* of the evaluative process. In the words of that distinguished specialist in comparative linguistics, Mario Pei, ". . . human destiny has largely been in the past, and will be in the future, what human beings make it."[11]

One can find reason for believing in the aggregate ability of the teaching profession, through evaluation, to improve human destiny through work in the classroom with children.

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[11] Mario Pei, *The Story of Language* (Philadelphia: J. B. Lippincott Co., 1949), p. 464.

Discussion Questions and Suggested Activities

1. Apply the "criteria for selecting subject matter" (pp. 120-121) to a specific unit or project that might be developed in a classroom with which you are familiar.
2. List some of the ways or procedures through which children can be helped to understand the meanings of both *freedom* and *responsibility* through their classroom experiences. Do these procedures vary, basically, at different grade levels?
3. Discuss some of the outward manifestations of the evaluations that children themselves make of their in-school experiences. How can these evaluations be used by teachers to improve learning?

Selected and Annotated Readings

1. Almy, Millie, *Child Development*. New York: Henry Holt & Co., 1955.

   A freshly styled and effective book that should help the reader enlarge his concepts of growth and development in children and better understand how evaluation is fully meaningful only when it is based on a mature grasp of the nature of both children and the learning process.

   The four books below, both widely used and significant, are included here for the same reason as No. 1.

2. Havighurst, Robert, *Human Development and Education*. New York: Longmans, Green & Co., 1953.

   Notable as a presentation of the highly influential concept of "developmental tasks" and what they suggest for the curriculum.

3. Jenkins, Gladys G., Helen Shacter, and William W. Bauer, *These Are Your Children,* expanded ed. Chicago: Scott, Foresman & Co., 1953.

   Lucid and delightfully illustrated guide on child development.

4. Olson, Willard C., *Child Development*. Boston: D. C. Heath & Co., 1949.

   An important, scholarly, and carefully documented book. Especially important to the evaluator because of its treatment of "organismic age."

5. Stratemeyer, Florence, *et al., Developing a Curriculum for Modern Living*. rev. ed. New York: Bureau of Publications, Teachers College, Columbia University, 1957.

   Among its virtues, this substantial book interprets the role of "persistent life situations" and their implications for curriculum development.

6

Evaluation, Research and Measurement in the Elementary School

THE concept of elementary school curriculum improvement through evaluation is important because, as noted previously, this improvement is a comprehensive process *that is concerned with more than measurement alone.* At the same time, evaluation often involves measurement or research and may frequently *require* measurement and research to give it meaning. In short, evaluation, research, and measurement are interdependent in many circumstances. Research and measurement provide data for use in school appraisal, while, conversely, educational values and the various steps in the evaluative process (*cf.* p. 61 f.) lend direction to and help insure the wise and efficient use of research and measurement tools.

The present chapter examines many of the ways in which measurement and research tools facilitate appraisal and contribute to the effectiveness of teaching and learning in our schools. Emphasis here is placed on tools that facilitate the work which principals and teachers do with children within the framework of the school curriculum.

■ Relationships among Evaluation, Research, and Measurement

FUNCTIONAL RELATIONSHIPS. Evaluation, research, and measurement should share a close functional relationship. Each is less adequate when used alone in total school appraisal than when all are used in conjunction. Evaluation is concerned with total school situations, at least in many circumstances, yet in any total situation there are many component parts which must be studied in order that we may comprehend the whole. Measurement tends to be concentrated on single things or qualities, such as skills, achievement, intelligence, and even such relative intangibles as attitudes or personality. Research involves hypotheses or "hunches" that are verified, modified, or discarded as a result of subsequent experimental inquiry.

In the basic functional relationship, *evaluation* gives direction and suggests procedure in determining and seeking curriculum goals, *research* provides a suitable design and operational plan for seeking and verifying sought knowledge, and *measurement* creates and applies the tools that help to bring the research to a successful conclusion. Because of this close interrelationship, the evaluator needs to know something of research design and the tools of measurement.

HISTORICAL RELATIONSHIPS.[1] The last century has witnessed an interesting evolution of the evaluation-research-measurement relationship. We are indebted to the natural and physical scientists of the past century for devising the scientific method of problem-solving and for creating the scientific climate in which evaluation developed. In general, the concepts of research, measurement, and evaluation have moved through seven phases:

(1) *Prior to 1900,* and especially after 1865, the concept of scientific research began to mature, due to the pioneering of such men as Louis Pasteur and Thomas Edison.

(2) *From 1900 to 1910,* the concept of testing took form. J. M. Rice, a journalist and physician, proposed the first "modern" design for measuring spelling achievement in *Forum Magazine* in 1897. In 1905, Binêt published the first of his scales for associating performance with intelligence; in 1907, the Pintner-Patterson Performance Scale appeared; and in 1910, E. L. Thorndike devised a handwriting scale.

(3) *During the period 1910-1920,* testing became established as a significant part of professional education. Leonard P. Ayres published handwriting and spelling scales, for instance, and other scales by Hillegas, Trabue, and Woody dealt with composition, language, and arithmetic, respectively. Terman's influential revision of Binêt's

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[1] Also see Appendix A for a résumé of historical relationships.

Intelligence Scale appeared in 1916, and New York City and other large cities began to use standardized tests in order to ascertain pupil achievement. Research procedures and techniques from the sciences were utilized and became an integral part of the budding testing programs.

(4) *From 1920 to 1930,* the testing movement and the application of research procedures to the solution of educational problems enjoyed tremendous respect and confidence. Many educators felt that their profession stood on the threshold of solving most of its long-standing problems and issues through "scientific" procedures. Intelligence and achievement testing flourished and markedly influenced grouping and promotion policies in the elementary school. Also, a "scientific" approach was made to the development of what was deemed to be proper scope and sequence in the curriculum.

(5) *Between 1930 and 1940,* the concept of evaluation made its appearance. From the outset it was conceived of as a means to appraise the intangibles of teaching and learning. As far back as 1931, the Progressive Education Association contemplated means of appraisal that extended beyond mere standardized testing, and by the mid-1930's one of the great pioneers in evaluation, J. Wayne Wrightstone, had fired the imagination of educators by developing procedures for gauging the less tangible qualities of instruction.[2]

Also, by 1936, the influential Eight-Year Study had been launched by the Progressive Education Association in an effort to establish the merit of newer instructional practices in secondary schools. Late in the decade, evaluative practices were elaborately developed in the instrument of the Cooperative Study of Secondary School Standards.

(6) *The years 1940-1950* witnessed a coordination of research, measurement, and evaluation in which the three were recognized as complementary rather than conflicting procedures or tools for the educator. Considerable stress was placed on self-evaluation, especially at the elementary level (see bibliography of elementary school evaluation instruments on page 73 ff.), and it was clearly recognized that, while evaluation gave *direction* to curriculum improvement, research and measurement helped to give *substance* to appraisal practices. Also, irrespective of the continued interest in evaluation, research and testing programs were completely accepted as a part of the public school

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[2] See Appendix A for a more detailed statement on the development of evaluation.

program. (See "Evaluation in Action" on pages 70-76 for examples of evaluation projects of the 1940's and 1950's.)

(7) *From 1950 to the present,* an added impetus has been given to research, measurement, and evaluation through the local self-improvement and self-appraisal procedures widely known as *action research.* One of the major values of action research has been its emphasis on applying research, measurement, and the over-all evaluative process as needed for the improvement of curriculum practices in a particular school system.

THE GOAL OF CURRICULUM IMPROVEMENT THROUGH EVALUATION. For the evaluator's self-improvement, an important point to bear in mind is that a valuable professional heritage is to be found in research and measurement. The evaluator uses these tools in curriculum change and curriculum improvement. The pages that follow review instruments, techniques, and other items which help us to achieve the goal of curriculum improvement.

■ The Evaluator's Tools

The various tools that can be used to determine the effectiveness of the school curriculum fall into two large categories. The first of these are instruments or research procedures for studying and guiding individual human development. The second are means for appraising the quality of learning or achievement that results from children's curricular experiences.

Since we are concerned with how the school program can change or modify children's behavior in socially desirable ways, obviously we must have some means of studying and recording the changed behavior. Attention is first directed to the tools that help us to gauge changes in human development.

RESOURCES FOR STUDYING AND GUIDING HUMAN DEVELOPMENT. There are many means of studying children, which range from the simple to the complex and from the inexpensive to the costly. More than 20 such resources are discussed below. They are chosen either because they are in widespread use, or because of the danger that they will be misused, or because they are especially valuable or interesting.

(1) The cumulative record folder. The cumulative record folder is both a means of studying children and a repository for records that accompany the pupils from their early days in school through graduation. As shown in the reproduction of the record folder from the

Racine, Wisconsin, Public Schools, a variety of useful data are recorded annually. (See Figure 6:1.)

The cumulative record folder is especially useful as a means of reviewing longitudinal changes in individuals or groups of children. The fact that schools customarily place in it information as to health, academic progress, psychological and other tests makes the folder an item of increasing value. As a rule, cumulative records are—quite properly—stored so as to be available readily. The principal should not only make sure that the records are accurate and up to date, but he should also encourage the periodic study and analysis of such records by teachers as a means of appraising the school's success in achieving the goals it seeks.

(2) Anecdotal or behavior observation records. Closely related to cumulative record folders are various types of anecdotal or behavior observation records. These are notations that frequently are placed in the large individual record folder.

Behavior records, as suggested in a classic report on the topic by the American Council on Education,[3] may be extremely helpful or actually misleading, depending upon the skill of the teacher making an observation. For their successful use in evaluating changes in children as a result of their curricular experiences, anecdotes should not be merely teacher's subjective reactions to children; they should be valid descriptions and analyses of the boy or girl in question.

The discerning teacher in preparing behavior records:

(a) thinks of behavior as *caused* . . . ,
(b) accepts children emotionally and rejects none as unworthy . . . ,
(c) recognizes the uniqueness of every child . . . ,
(d) understands the developmental tasks that arise as children mature (that is, tasks such as learning to read or to get along with age mates[4]) and that these tasks must be accomplished to insure their happiness and success . . . ,
(e) knows the scientific facts that explain human development . . . ,
(f) bases judgments reflected in anecdotal records upon scientific observation rather than hasty opinion.[5]

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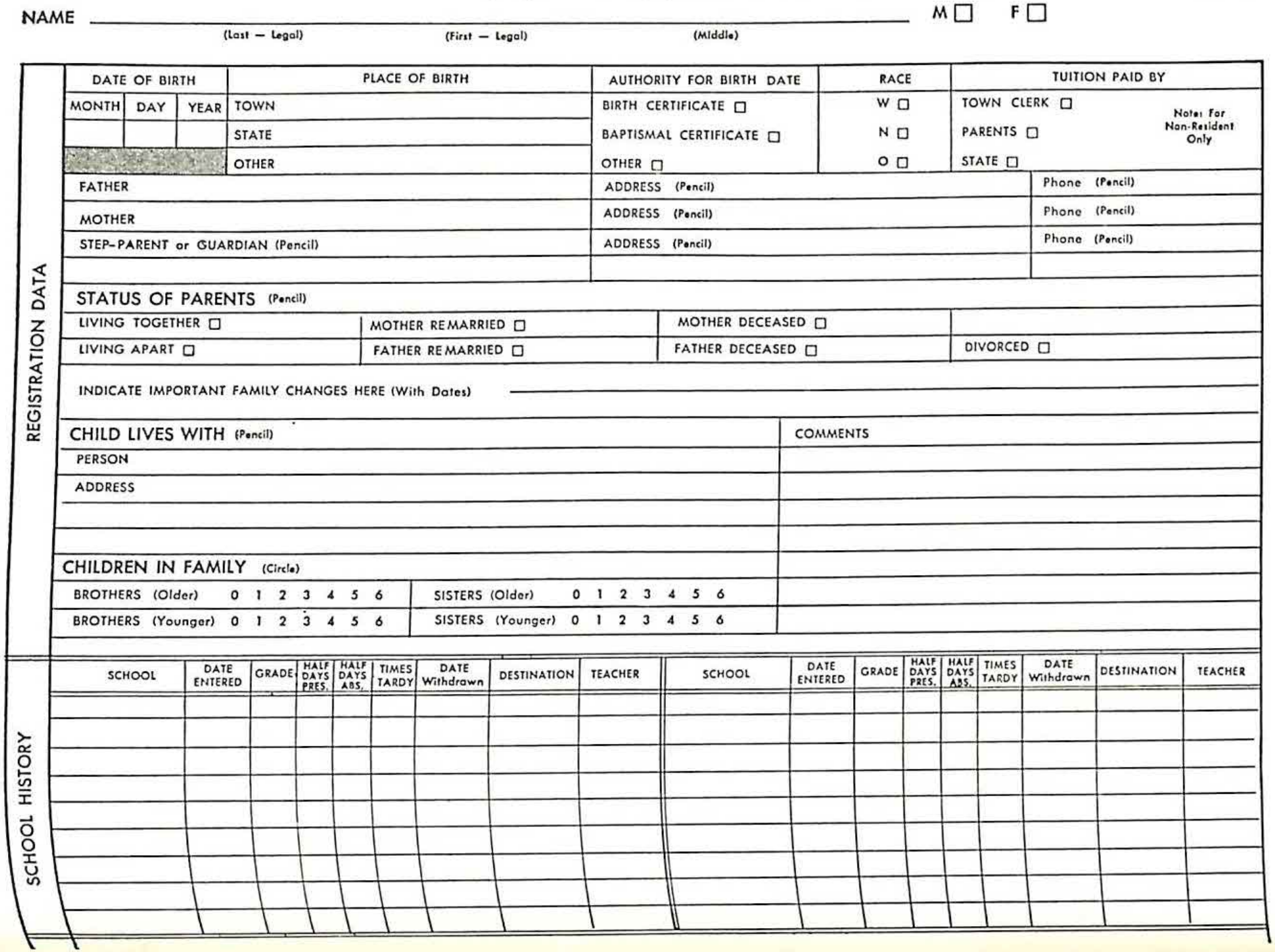
[3] American Council on Education, *Helping Teachers Understand Children* (Washington, D. C.: The Council, 1945), pp. 1-20.

[4] See Robert V. Havighurst, *Human Development and Education* (New York: Longman's, Green & Co., 1953), Ch. 4.

[5] See *Helping Teachers Understand Children, op. cit.,* pp. 8-12.

Figure 6:1. An Example of a Cumulative Record Folder from the Racine, Wisconsin, Public Schools (Reproduced by permission.)



NAME ________________ (Last — Legal) (First — Legal) (Middle) M ☐ F ☐

REGISTRATION DATA

DATE OF BIRTH			PLACE OF BIRTH	AUTHORITY FOR BIRTH DATE	RACE	TUITION PAID BY	
MONTH	DAY	YEAR	TOWN	BIRTH CERTIFICATE ☐	W ☐	TOWN CLERK ☐	Note: For Non-Resident Only
			STATE	BAPTISMAL CERTIFICATE ☐	N ☐	PARENTS ☐	
			OTHER	OTHER ☐	O ☐	STATE ☐	

FATHER	ADDRESS (Pencil)	Phone (Pencil)
MOTHER	ADDRESS (Pencil)	Phone (Pencil)
STEP-PARENT or GUARDIAN (Pencil)	ADDRESS (Pencil)	Phone (Pencil)

STATUS OF PARENTS (Pencil)

LIVING TOGETHER ☐	MOTHER REMARRIED ☐	MOTHER DECEASED ☐	
LIVING APART ☐	FATHER REMARRIED ☐	FATHER DECEASED ☐	DIVORCED ☐

INDICATE IMPORTANT FAMILY CHANGES HERE (With Dates) ________________

CHILD LIVES WITH (Pencil)	COMMENTS
PERSON	
ADDRESS	

CHILDREN IN FAMILY (Circle)

BROTHERS (Older) 0 1 2 3 4 5 6	SISTERS (Older) 0 1 2 3 4 5 6
BROTHERS (Younger) 0 1 2 3 4 5 6	SISTERS (Younger) 0 1 2 3 4 5 6

SCHOOL HISTORY

SCHOOL	DATE ENTERED	GRADE	HALF DAYS PRES.	HALF DAYS ABS.	TIMES TARDY	DATE Withdrawn	DESTINATION	TEACHER	SCHOOL	DATE ENTERED	GRADE	HALF DAYS PRES.	HALF DAYS ABS.	TIMES TARDY	DATE Withdrawn	DESTINATION	TEACHER

A banal or superficial anecdotal observation often reads somewhat as follows:

> Kitty talks too much. She tattles and is a little sneak, and she is sullen when I speak to her. (Grade 6)

A more revealing statement is the following:

> Kitty is her mother's oldest child by a former marriage. She is expected to look after her younger sister and two half-brothers much of the time. She experiences severe discipline and is rewarded with grudging parental approval only when she conforms to home demands to the letter. Kitty has begun to show signs of resenting her home since the second week of the present year and, according to her mother, threatened the mother with a kitchen knife when told to do the dishes before going to a movie. While Kitty's work is satisfactory, she is left out of classroom friendship groups. She seems to seek to retaliate by tattling. Kitty took Sally's pencil, but later denied doing so even when I told her that I had seen her slip it into her desk, and was sullen rather than abashed. (Grade 7)

Note that *data* rather than *reactions* are recorded in the second entry and that works such as *sneak,* which may reflect teacher rejection, are avoided. A *series* of meaningful behavior descriptions can be most helpful to the teacher in evaluating both individual and group development.[6] Willard C. Olson's *The Behavior Journal* is an example of a useful longitudinal record for preserving behavioral data in organized form throughout the elementary years.

(3) Activity records. The activity record is another helpful tool, generally less comprehensive than anecdotal or behavioral records. At the elementary school level, it is often the teacher's record of a given child's participation in projects or activities planned by the group. Typical behavior-record data are especially helpful when used in conjunction with other procedures for studying behavior. To use a simple example, an increase in disorderly playground behavior may assume added meaning in the case of an intermediate-grade boy when the teacher links it to findings from a parent conference that reveal a current conflict with a father who has forbidden his son to use money earned mowing lawns to buy a new bicycle.

(4) Behavior checklists. Some teachers have attempted to codify behavior observations in lists that can quickly be checked (✓) to summarize behavior in a manner similar to that used on certain types of pupil progress reports sent to parents. The checklist is of dubious

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[6] The reader desiring more information on behavior records may wish to examine the carefully organized Behavior Journal developed at the Campus Laboratory School at the University of Michigan.

value because of its subjective nature and lack of depth insofar as interpretation is concerned. While "easy" to use, it may camouflage or misrepresent the *causes* of pupil behavior.[7]

(5) Behavior rating scales. The rating scale is simply an extension of the checklist, usually with three or more alternative choices for the teacher to check. For example, in its simplest form an excerpt from a teacher-made scale might look like this:

	Nearly Always	Most of the Time	Part of the Time	Rarely
COOPERATIVE		✓		
NEAT	✓			
PROMPT			✓	

(Etcetera)

Such appraisals depend entirely upon the teacher's skill and personal standards and often are merely a refinement of the erroneous belief that behavior can be successfully interpreted and indicated by a checkmark. If used at all, as in a research study, lists and scales should be checked by teachers only after careful study and interpretative thought have given a clear-cut meaning to the terminology used. A useful and long-established device is the *Haggerty-Olson-Wickman Behavior Rating Schedule* published by the World Book Company.

(6) Case studies. Long used in certain fields, such as psychology and sociology, the case study is an individual record-in-depth and an extension of the anecdotal record concept. Case studies often are extremely valuable but are time-consuming and need to be made by persons who are properly prepared to obtain and to interpret information pertaining to an individual child. Time limitations generally restrict the case study to use in conjunction with research projects and to children from problem situations which require data-in-depth in order that a child can be helped to overcome his difficulties, at least in part. It is also extremely important that case records be interpreted with professional skill and with due regard for data from a number of

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[7] Both checklists and rating scales are described and discussed in detail in J. Wayne Wrightstone, Joseph Justman, and Irving Robbins, *Evaluation in Modern Education* (New York: American Book Co., 1956). See Chapter 9.

sources. Misinterpreted case data can be worse than useless if they lead to faulty conclusions and misguided efforts to remedy an incorrectly interpreted situation.

(7) Films and transcriptions. Some successful attempts have been made to study and appraise child behavior through the use of cameras (usually concealed) and recordings of various kinds: stenographic, wire, tape, and so on. The Yale child-study center long associated with Dr. Arnold Gesell, for example, made a number of films, and recordings have been made for many years in school systems with recording equipment. As a rule, the study of behavior through the use of special equipment has been handicapped by cost, the fact that the presence of equipment may create an atypical situation, and the likelihood that the area involved is limited in size. New electronic developments have, however, greatly increased the flexibility of recording equipment and better photographic emulsions have somewhat improved film as a means of examining behavior.

(8) Television. Close circuit television, in particular, is providing an enlarged basis for observing behavior unobtrusively, although it is being used at present, in many instances, merely to introduce student teachers to classroom observation. In the near future, the experimental use of TV for observation may become more widespread. At the same time, mature educators will recognize that such relatively "novel" aids in the study of behavior as television add little, if anything, that is *basically* new to the study of behavior. A convenient mechanical device is no substitute for judgment or skill in guiding behavior. If poorly used, any means of studying children more easily or extensively can actually increase the danger inherent in faulty conclusions by helping school people to err more rapidly and on a wider scale.

(9) Parent conferences. Parent conferences have been used for decades when children were "in trouble" at school and, especially at the primary level, have been employed as a means of interpreting pupil progress to mother and dad. Most recently the parent conference has assumed enhanced importance for those engaged in appraisal of the curriculum. First, it has been recognized as a means of helping us to appraise *with* parents the influence of the school program on children, rather than merely to tell *to* parents how Tom or Betty is getting along in school. Second, the conference has become a means of ascertaining something of the quality of parent–child relationships and the depth of parental understanding with respect to their child.

Such information is a source of understandings that we need in evaluating the individual pupil's adjustment and progress.

(10) Socio-economic data. Although not often thought of as tools for the curriculum evaluator, socio-economic and social-class data sometimes are useful. Thanks to workers in the related discipline of sociology, evaluators can use such tools as those developed by W. Lloyd Warner. Warner, with his associates, conducted the monumental *Yankee City* study that has eventuated in a better understanding of class structure in the United States. Familiarity with Warner's work[8] (for example, Warner's six-level social-class analyses, developed in the form of a scale) and with studies of American community and political "power structures," such as that made by C. W. Mills,[9] enable educators more accurately to appraise the community social structure and to determine its implications for curriculum development. Again, a caution must be voiced with respect to careless or casual use of socio-economic data. The inexperienced or incompetent person, whether motivated by good intentions or curiosity, can make errors both in gathering and in interpreting information if he is deficient in training.

(11) Health records. Particularly with respect to the individual child, properly designed and maintained health records are of help in the study and interpretation of behavior. Routine annual records may be significant and, in addition, such devices as the Wetzel Grid may be helpful. The Grid is a means of charting physical changes in the growing child and may be used to anticipate changes in behavior likely to be influenced by the rate and nature of physical development.

(12) Organismic age data. Some years ago, Dr. Willard C. Olson pioneered in the development of the concept of a central tendency of child growth that has come to be called *organismic age.* Basic to understanding the concept are two principles: the child is under the influence of a gradually unfolding design, and adults err when they attempt to influence the time schedule of individual child growth by forcing premature training upon him.[10] Conversely, they may harm the child by depriving him of the means of suitable progress toward

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[8] W. Lloyd Warner and others presented their findings in the multi-volume Yankee City Series: for example, W. Lloyd Warner and Paul S. Lung, *The Status System of a Modern Community,* Vol. 3, The Yankee City Series (New Haven: Yale University Press, 1942).

[9] The reference is to C. Wright Mills, *The Power Élite* (New York: Oxford University Press, 1956).

[10] See Willard C. Olson, *Child Development* (Boston: D. C. Heath & Co., 1949), p. 40.

increasing maturity. Various means have been devised to ascertain some of the more simple indices of organismic age: grip age, height age, dental age, carpal age, weight age, mental age, and so on. An understanding of the concept of organismic age and some familiarity with ascertaining central growth tendencies of the individual are important to understanding and evaluating human behavior and in planning curriculum experiences to improve the quality of behavior.

(13) Readiness data. "Maturity" refers to a child's total state of readiness for an activity under discussion.[11] Since teaching and learning are closely linked with readiness, both the individual evaluations by the teacher as he studies children in a classroom and curriculum evaluation and planning in the school as a whole may depend upon a knowledge of the readiness of children for a given set of experiences. It follows that any tests or instruments that serve to clarify a child's level of maturity (or total state of readiness) may be highly useful tools. Fortunately, a number of effective, reliable tests and means of studying or ascertaining readiness are available. Some years ago, readiness was associated mostly with readiness for reading at the primary level. Now, fortunately, it is recognized that readiness for *any* given experience is important, and that readiness applies to one's lifetime and is essential for coping with any impending activity or venture.

(14) Children's creative expression: diaries, writing, and painting. Yet another means of understanding the inner world of the child and the overt behavior we seek to improve through evaluation are the vehicles through which he expresses inner and creative impulses. Diaries of their experiences and reactions as written by children often help us to understand youngsters who are old enough to express themselves on paper. Creative writing in general is also self-revealing if done in a free environment.[12] In the realm of art, and particularly the art expression of children too young to write revealingly, much can be learned about the child's inner being as he projects himself through his painting. Alschuler and Hattwick[13] have made one of the more significant depth studies of children's art work and suggest how their paintings and their personalities are associated. For the great majority of school workers, of course, any inferences drawn from such a source as children's creative work must be highly tentative. In other words,

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[11] *Ibid.*, p. 4.

[12] See "Writing and Growth," Chapter 7 in Alvina T. Burrows *et al.*, *They All Want to Write* (New York: Prentice-Hall, Inc., 1952), pp. 193 *ff*.

[13] Rose H. Alschuler and La Berta Hattwick, *Painting and Personality*, 2 vols. (Chicago: University of Chicago Press, 1947).

unusual attributes in creative expression or activities should be used not as a *basis for conclusions* but as a *source of the suggestion* that a child's behavior be subjected to further study. To coin an alliterative phrase, creative work provides more clues than conclusions for the average teacher

(15) Projective techniques. Established projective techniques (such as the Rorschach Ink Blot Test) are a scientific extension of the idea that is discussed in the preceding paragraph. "Basically, a projective technique is a method of studying the personality by confronting the subject with a situation to which he will respond according to what the situation means to him and how he feels when so responding."[14] While the five basic projective methods[15] can be employed properly only by the specially trained technician, such methods are a vital resource in the evaluation of ways in which socially desirable changes can be made in human behavior. Among the projective techniques, in addition to the Rorschach Test, are such items as the Stern Cloud Patterns, free sculpture with soft materials, free drawing, play with dolls and other toys (for example, the David Levy Therapeutic Doll), the Thematic Apperception Test (T.A.T.), the Schwartz Social-Situation Pictures, sociodrama, and psychodrama. At least some projective methods can be used by teachers after brief study. An example of a projective device designed expressly for children, which many teachers have found helpful, is *The Wishing Well,* published by the Bureau of Educational Research, The Ohio State University.

(16) Indices of personal-social adjustment. The success with which one interacts with his total environment is the basis for what is called "good personal-social adjustment." Obviously, behavior that is indicative of good adjustment at age six is appreciably different from well-adjusted behavior at age nine or twelve. When appraising the school curriculum, one may sometimes need child-adjustment data both as a means of determining how to help children become more socially mature and, subsequently, to determine the school's success by comparing changing patterns of social maturity. The well-known *Vineland Scale of Social Maturity*[16] is an example of an instrument that helps one to ascertain levels of social maturity. Another, designed

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[14] Lawrence K. Frank, *Projective Methods* (Springfield, Ill.: Charles C. Thomas, Publisher, 1948), p. 46.

[15] *Ibid.*, pp. 48-60. (The methods: constitutive, constructive, interpretative, cathartic, and refractive.)

[16] E. A. Doll, *Vineland Social Maturity Scale* (Vineland, N. J.: The Training School, 1936.)

for use in grades 4 to 6, is June Smith's *We Learn about Our Feelings,*[17] a booklet in which entries made by children are intended to reveal needs of a personal-social nature. *A Book about Me*[18] is another tool in the same category for the evaluator.

(17) Sociometric devices. The procedures for gauging the approximate nature and quality of relationships within a group are known as *sociometric* devices or procedures. Originally developed by Moreno in the 1930's, the sociometric analysis has been widely used in elementary schools, particularly since 1948 or 1950. *How To Construct a Sociogram*[19] is a booklet that gives explicit suggestions to the elementary teacher interested in using sociometric procedures.

In brief, the "social-status scores" of individual children are often obtained by asking a group of youngsters to answer simple questions such as:

> Who are three children with whom you like to *play?*
> Who are three children you would like to have *sit* near you?
> Who are three children with whom you like to *work?*

The children's answers, when tabulated, tend to reveal friendship patterns or social acceptance. Certain children are "stars" or widely accepted and chosen; others are "isolates" and are rejected. It is customary to portray social-status scores on a diagram known as a *sociogram.* Often the individual child's sociogram may be drawn in the form of a circle which represents mutual patterns of choice. Also, group choices may be simply depicted as in the lower sketch in Figure 6:2.

Available sociometric devices, which vary in design, include "Who's Who in My Group" and the "Ohio Social Acceptance Scale," both prepared for use in the intermediate grades.[20] When teachers interpret sociograms and similar devices, they need to use good judgment lest they focus children's attention to an unwholesome extent on isolates, thus perhaps worsening at the outset the social rejection that the teacher had hoped to lessen.

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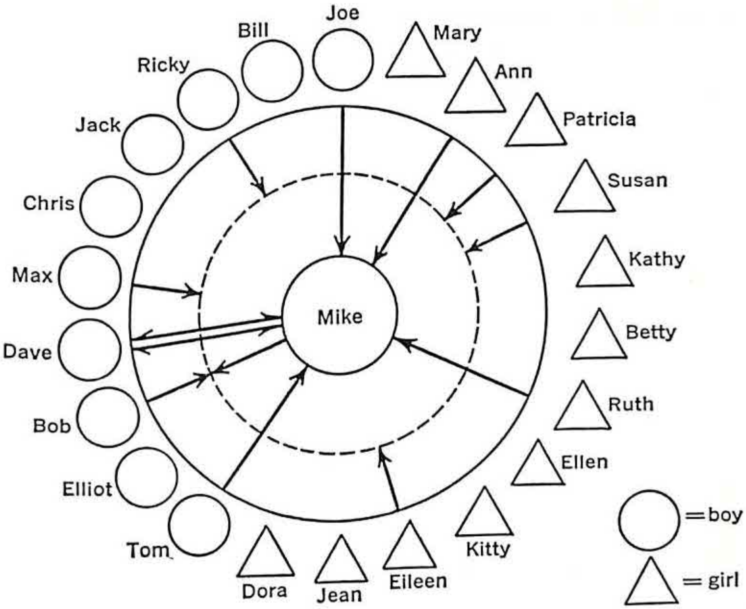
[17] June S. Smith, *We Learn about Our Feelings* (Elgin, Ill.: The Continental Press, 1949), 32 pp.

[18] Edith Sherman Jay, *A Book about Me* (Chicago: Science Research Associates, 1952), 32 pp.

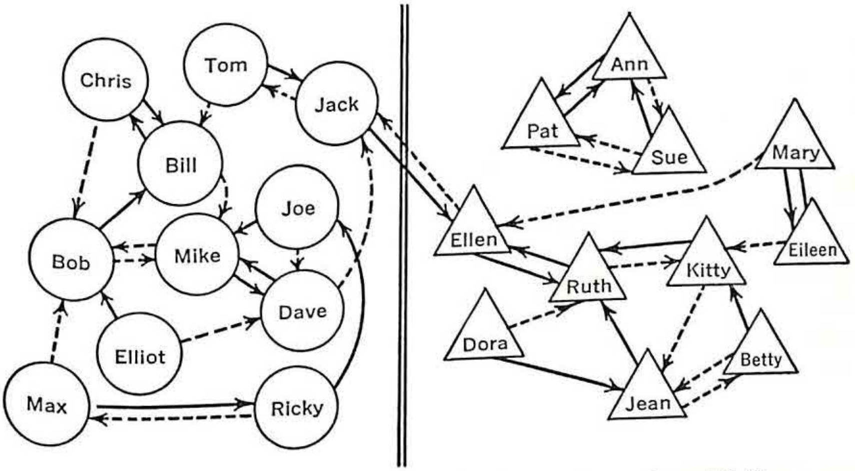
[19] Horace Mann-Lincoln Institute of School Experimentation, *How To Construct a Sociogram* (New York: Bureau of Publications, Teachers College, Columbia University, 1948), 37 pp.

[20] Available from the Bureau of Educational Research, The Ohio State University, these instruments are a part of a battery of evaluative tools for use in the elementary grades.

Figure 6:2. Individual and Group Sociograms



Individual Sociogram Data. The choices of the boy in the center are indicated by arrows. A *long* arrow represents a first choice, while a second choice of a friend is shown by a *short* arrow. A two-headed double-line arrow shows a mutual choice. "Mike" is shown to be popular with his peers of both sexes.



Group Sociogram Data. First choices of friends are shown by solid lines, second choices by dotted lines in this small fifth-grade sample. Note the cross sex choice, the tight little pattern of friendship at the upper right, and the isolated boy, "Elliot."

(18) Interest inventories. Yet another of the means to a better understanding of children is the interest inventory, a device that usually takes the form of a questionnaire or checksheet. As one would

infer, the inventory is useful both in guiding individual children and in appraising their attitudes toward school experiences. Good examples of the interest inventory include Part VI of the *Diagnostic Child Study Record,* developed by Paul Witty and David Kopel and particularly suited for use with elementary children. Typical excerpts are:

ITEM 6.

What tools, toys, or playthings do you have at home?______
____
Which do you like best?______________________________
Do you let other children use your toys?__________ If not, why?______________________________________
Is there any tool, toy, or equipment that you especially want?__________ What?_______________________
Do you have a workshop?_____________________________
Are you carrying on any experiments?___________________
What?______________________________________
Do you ever give shows?_____________________________

ITEM 12.

Do you have a pet?__________ What?__________________
Are you making any collections?________ Of what?________
____
Do you have a hobby?_________ What?_________________

ITEM 13.

Do you like school?__________________________________
What school subjects do you like best?
First____________ Second___________ Third____________
Do you take any electives?_________ What?_____________
____
What school subjects do you dislike?____________________
____
What do you do best in school?______________________[21]

A different but interesting inventory was developed by Louis Raths. His *Ohio Interest Inventory: For the Intermediate Grades*[22] lists in parallel columns many activities for which children express a like or a dislike. From the structure of the instrument there emerges a pattern of interests related to a variety of fields, arithmetic and social studies, for instance.

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[21] Paul Witty and David Kopel, *Diagnostic Child Study Record:* VI. Pupil Report of Interest and Activities (Northwestern University, Evanston, Ill.: Psycho-Educational Clinic, 1948).

[22] *Ohio Interest Inventory: For the Intermediate Grades* (Columbus, Ohio: The Bureau of Educational Research), 4 pp.

(19) Problem checklists. As a rule, problem checklists consist of series of queries that children are called upon to answer and that are intended to reveal a child's concerns and insecurities with regard to such potential problem areas as health, peer relations, school work, or relationships with parents. Ross L. Mooney did much pioneering with problem checklists and has designed (among others) an instrument for use with youngsters at the upper elementary or junior high level.[23] Science Research Associates has published analogous checklists for the intermediate grades,[24] and by 1958 experimental efforts at identifying children's problems had been extended downward to the second grade.[25]

In evaluation, the problem checklists serve to identify problems that need to be met as one seeks to guide children and also as a means of ascertaining progress made in assisting children in problem situations.

(20) Aptitude tests. Although aptitude testing is often thought of in connection with children above the elementary level, there are some suitable appraisal tools for use in certain content areas, at least in the intermediate grades and above. In music, for example, one may use the *Drake Musical Memory Test,*[26] Whistler and Thorpe's *Musical Aptitude Test*[27] (both involving the use of a piano in presenting the tests), or the *Seashore Test of Musical Talent,*[28] which utilizes phonograph records. In art, too, there are devices for appraising children's judgment, and also their skill in using certain art media. The aptitude of children for recognizing the merit of artwork is gauged by the *McAdory Art Test,*[29] which probably has some value even with primary children if used judiciously. Other examples: *Lewerenz's Tests*

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[23] Ross L. Mooney, *Problem Check List—Junior High School Form* (Columbus, Ohio: The Bureau of Educational Research, 1948).

[24] H. H. Remmers and R. H. Bauernfeind, *SRA Junior Inventory—Form S* (Grades 4-8). Revised January, 1957 (Chicago: Science Research Associates, 1957), 32 pp.

[25] Primary-level problem checklist research by Mary Aline Callis was in the process of completion, Spring, 1958, at Northwestern University.

[26] R. M. Drake, *Drake Musical Memory Test: A Test of Musical Talent* (Bloomington, Ill.: The Public School Publishing Co., 1934).

[27] H. S. Whistler and L. P. Thorpe, *Musical Aptitude Test,* Series A (Los Angeles: California Test Bureau, 1950).

[28] C. E. Seashore, *et al., Seashore Measures of Musical Talent,* rev. ed. (New York: The RCA Manufacturing Company, 1939). Series A of these tests is for general talent survey purposes.

[29] Margaret McAdory, *McAdory Art Test* (New York: Bureau of Publications, Teachers College, Columbia University, 1929).

in Fundamental Abilities of Visual Arts,[30] for use in grade 3 and above, and the *Knauber Art Ability Test*[31] for use beginning in grade 7. Again, say, in such fields as arithmetic and language usage, there are various diagnostic tools that may also be classified as aptitude tests. These are mentioned in the chapters concerned with subject areas.

(21) Attitudes and values. While the realm of attitudes and values is an intangible one, progress has been made in studying these wellsprings of behavior. Edna Baxter's *Group Test of Child Feelings,*[32] which in some forms may be used even with children at the primary level, concerns itself with such qualities as friendliness, honesty, and self-control. The *Ohio Social Acceptance Scale,* to which reference previously has been made as a sociometric tool, also can be classified as a gauge of attitudes and values. Particularly when one is evaluating the success with which the school curriculum is influencing the child's skill in human relations, instruments that deal with intangibles are of use.

An important contribution to the literature appeared a few years ago when Foshay and Wann produced *Children's Social Values.* It illustrates especially well that the study of values and attitudes can be an exciting and *creative* experience. Among some arresting conclusions: attitudes are caught, not taught; social attitudes are determined by the forces of school society as the children see them; children's efforts to keep school social forces in balance largely produce their code of social behavior; and teachers, for good or ill, exert a powerful influence on the attitudes and values of children in school.[33] *Things I Wish, Things about Me, Who Could It Be?* and *My Problems in Growing Up* are among the instruments adapted and devised for the Foshay-Wann study and appear in their Appendix C.[34]

(22) Thinking and problem analysis. Well out on the frontier of educational thinking are those instruments that seek to probe the nature and quality of children's thinking, although a most valuable analysis was made by Russell in his milestone publication *Children's*

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[30] A. S. Lewerenz, *Tests in Fundamental Abilities of Visual Arts* (Los Angeles: California Test Bureau, 1927).

[31] A. J. Knauber, *Knauber Art Ability Test* (New York: The Psychological Corporation, 1935).

[32] Available from the author, 15 Claremont Avenue, New York 27, New York.

[33] Arthur W. Foshay and Kenneth D. Wann, *Children's Social Values* (New York: Bureau of Publications, Teachers College, Columbia University, 1954), pp. 6-9.

[34] *Ibid.,* pp. 302 *ff.*

Thinking.[35] Representative tools for searching out children's thought processes cover a considerable range. On the specific side, Rappaport[36] devised a meanings test for use in connection with upper elementary mathematics classes, a test that seeks to determine children's mental *processes* and *insights* when doing their work rather than merely to determine whether they can come up with the "right" answer. More general thought processes in reasoning are treated in a *Thinking Check-Up*[37] test for the middle grades from which excerpts are given in Figure 6:3.

(23) Intelligence tests. Tests of intelligence have been so exhaustively treated in many sources that the I.Q. test is merely mentioned here as an obvious resource for studying and guiding human development. (For example, see Frank S. Freeman, *Theory and Practice of Psychological Testing,* New York: Henry Holt & Co., 1950.)

Whether one is interested in evaluation as concerned with studying, interpreting, and guiding socially desirable changes in human behavior, or whether one is involved in research or measurement stemming from or implementing curriculum appraisal, the kinds of tools and techniques so cursorily reviewed lend substance and direction to his work.

RESOURCES FOR MEASURING THE QUALITY OF LEARNING: SUBJECT-CONTENT TESTS. In addition to procedures for the creative study of behavior, there are many tests of the success with which children are learning subject matter. These tests are of great importance in the total program of curriculum evaluation.

Unfortunately, in the past, needless disagreement has sometimes arisen between those persons who identified evaluation with applying educational values to the improvement of the curriculum and those who associated evaluation merely with testing. Actually, as stressed earlier in this chapter, testing often is a vital component of evaluation—but testing *alone* should not be construed to constitute the total program of evaluation.

The role of testing in evaluation. Tests can be either helpful or harmful to the process of curriculum improvement through continu-

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[35] David H. Russell, *Children's Thinking* (Boston: Ginn & Co., 1956), 449 pp.

[36] David Rappaport's test is reproduced in the appendix of his "An Investigation of The Degree of Understanding of Meanings in Arithmetic of Pupils" (unpublished Doctor's dissertation, Northwestern University, 1957).

[37] *The Ohio Thinking Check-Up* (Columbus, Ohio: The Ohio State University Press).

Figure 6:3. Facsimile Pages from *The Ohio Thinking Check-Up*

DIRECTIONS

(To be read aloud)

Sometimes when we read something we think about it. Sometimes when we hear something we think about that, too. We ask ourselves, "Is that true?" Often we say, "That isn't true." At other times we can't make up our minds. We are uncertain.

We have some stories for you to read. After each story you will find some sentences. We want to know what you think about each sentence. *You don't have to believe the whole story.* You should think about the story and think about each sentence. If you think the sentence is true, draw a circle around the "T"; if you think the sentence is false, draw a circle around the "F"; and if you cannot tell whether it is true or false, draw a circle around the "?". If you cannot read it or understand it, raise your hand and your teacher will help you to read the sentence. Make only *one* (1) circle for each sentence.

THE FIRST STORY

At Roosevelt School there is a fine football team. This school won the championship last year. Bill goes to Roosevelt and his friend Jack goes to Lincoln, which does not have a very good team.

"Roosevelt is a better school than Lincoln," said Bill one day.

"I don't think so," replied Jack. "I like our school."

"Ours is the best because we won the championship, didn't we? Your team is terrible," answered Bill.

1. Roosevelt won the championship last year. T F ?
2. Bill likes to play football.............. T F ?
3. Roosevelt will beat Lincoln this year.... T F ?
4. Bill and Jack go to the same school...... T F ?
5. Jack cannot play ball very well......... T F ?
6. Jack likes his school................... T F ?
7. Lincoln School is not as fine a school as Roosevelt because their boys cannot play football as well as the Roosevelt boys.... T F ?
8. Roosevelt is the finest school in the town. T F ?

THE SIXTH STORY

We are going to have a school fair. Bill has charge of selling tickets. Here is a list of the number of children who bought tickets last week and the total amount received for tickets each day.

	Number of Children Buying Tickets	Amount of Sales
Monday	10	$1.00
Tuesday	15	1.50
Wednesday	5	.50
Thursday	20	2.00
Friday	12	1.20

1. Bill had charge of selling tickets for the school fair........................... T F ?
2. Sixty-two children will go to the school fair. .... T F ?
3. Many children forgot to bring their money on Wednesday................. T F ?
4. The tickets cost fifteen cents each....... T F ?
5. Bill did not try to sell any tickets on Saturday or Sunday.................. T F ?
6. Bill sold some tickets on every school day last week........................ T F ?
7. More tickets were sold on Friday than on any other day in the week............. T F ?
8. Bill was given a free ticket for doing this work............................ T F ?

ous appraisal. A sound interpretation of the place of subject-matter testing is based upon an understanding reached by the faculty with respect to the functions of such testing in fostering creative teaching. Also, as Ralph W. Tyler noted years ago in an article on evaluation, appraisal should be made in terms of the goals or objectives of the school.[38] No measurement of either changed behavior or of the quality of learning is valid without a previous knowledge of the nature of sought goals since without the definition of such goals there is no basis for gauging progress toward them.

Let us examine, first of all, what the testing program should seek to accomplish; then let us consider some of the suitable and unsuitable ways in which tests of the quality of children's subject-matter learnings can be used.

The purpose of testing to ascertain children's achievement. In the last analysis, testing in the elementary school has only one main purpose: to improve the quality of teaching and learning. When properly used, both standardized and teacher-made tests should serve to stimulate creative teaching; to help teachers and pupils gauge the success they are having in learning to function more effectively as well-informed human beings. Following this line of thought, achievement tests should help the teacher (1) to understand children's progress, to improve his teaching methods; (2) to recognize and provide for individual differences; (3) to suggest how both teacher and children can use time wisely; (4) to provide the reassurance that academic goals are being met (insofar as the age, cultural, and intellectual levels of children permit); and (5) to indicate how effective the curriculum structure seems to be.

Properly interpreted, the achievement test in any form should not be interpreted merely as a means of "checking up" on children (or the teacher!) but as one more clue to how we can continue to improve the work of our schools.

Characteristics of the good achievement-testing program. A list of characteristics is offered here to suggest briefly some points that teachers may wish to weigh when they discuss the policies governing achievement testing in their schools.

(1) The testing program does not place *unreasonable* pressure on children for *premature* achievement.

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[38] See Ralph W. Tyler, "The Place of Evaluation in Modern Education," *Elementary School Journal*, 41:19-27, September, 1940.

(2) It is recognized that high test scores *per se* do not always coincide with effective learning.

(3) Tests are used to measure and study individual progress rather than to compare a child invidiously with his classroom group, city school system, or national norms.

(4) Testing policies serve to free teachers to work creatively rather than to place them under pressure to teach for high test scores.

(5) Test results are used to analyze strengths and needed improvements in instruction in such ways as will help teachers to appraise the effectiveness of the total program.

(6) The nature and purpose of the testing program are explained to and understood by parents.

(7) It is recognized that a given test score is not an infallible indication of the true ability or capacity of an individual child, but that careful heed and action are called for when achievement is low.

(8) A variety of testing instruments are used; not only intelligence and achievement tests but other means of understanding human development.

(9) Test scores are interpreted in the light of the total available information pertaining to a given child, but children's "limited backgrounds" or "cultural lacks" are not used as an excuse for poor adjustment and achievement over a long period of time.

(10) Trends in a child's test records rather than a single test score are used in appraising progress. Often the *rate* and *direction* of a child's progress are more revealing than is his test score.

(11) It is understood that achievement test scores reflect only a portion of the child's total learnings in the program sponsored by the school.

(12) Local curriculum designs are not modified or altered *merely* so that the curriculum fits the testing program. However, consistently poor achievement and adjustment scores do require a careful appraisal of methods and materials of instruction.

The selection of testing instruments. More often than not, it is desirable for those who will be most likely to *administer* and *use* test results—that is, the teachers—to have a voice in deciding what tests will be used. When tests of pupil achievement are selected, certain criteria for test selection are helpful. This list may be helpful to consult when one deliberates whether to use a given test or battery of tests in the elementary school.

(1) A given test or instrument is suited to the age group(s) with which it is proposed to use it.

(2) The tests are a part of a comprehensive program designed to maintain and improve the quality of instruction.

(3) Heed is given to the cost and to the labor involved in the testing program, so that the program can be maintained over a long period of time.

(4) The tests used are convenient to administer.

(5) Insofar as possible, the tests can be checked by the teachers to help insure that they have a *direct* opportunity to interpret the results of their work with children.

(6) At least a substantial number of the tests used are accompanied by suitable norms that permit teachers to understand how their children are faring in comparison with children in other schools. While the testing program cannot be used to "standardize" teaching throughout the United States, when school populations are so varied, testing is less than meaningful when there is no wide base for interpreting achievement and intelligence-test scores.

(7) Testing instruments are reasonably comprehensive. A broad perspective of the child's intelligence, academic progress in various fields, and adjustment is provided by tests as he progresses through the elementary years.

(8) The tests actually measure what they are intended to measure, and they seem likely to be dependable or reliable.

(9) If locally developed or "teacher-made," the tests are checked, improved with great care, and used for a period of several years before great confidence is placed in them.

While the criteria above may be of considerable assistance in test selection, the success of the testing program is heavily dependent upon common sense being exercised in the local school system. All test results must be interpreted in view of local educational practices and conditions.

For example, some years ago a suburban school system administered a widely used battery of standardized achievement tests. The children, through grade 8, made what appeared to be a thoroughly satisfactory record, since 90 percent scored at or above the national norms for their respective grades. However, when a formula was applied to adjust the test scores so as to allow for the *intelligence* of the pupils, almost 70 percent of the children were achieving merely at or below the academic average that, presumably, should have been attained in view of their I.Q. scores. In short, the staff had been satisfied with what was actually a poor record of achievement for children of more-than-average intellect.

Variations in achievement that are influenced by environmental and intellectual factors require careful judgment when analyzing test results. In other words, test selection is important, but the value of careful selection can be canceled by faulty interpretation.

■ Developing a Sound Foundation for Employing Educational Measurement

The example of misinterpretation of achievement test scores cited above illustrates the importance of developing a sound basis for properly interpreting test results. Testing instruments, however good they may be, are worse than useless if misconstrued.

SCHOOL SITUATIONS AND CHILDREN ARE UNIQUE. Even within a small school system, great differences may exist between any two school buildings; in the nation as a whole, differences among schools may be tremendous. In any evaluation of the achievement of children, it is extremely important to recognize these differences in planning, administering, and interpreting tests.

Factors that influence testing are often elusive and illusive. Among some of the qualities that must be considered when examining test results are the language background of children (some do not even hear English spoken in their homes); intelligence and mental age (with due consideration for the fact that a meager environment or a foreign-language background may conceal a child's true intelligence); chronological age and maturity (both of which may vary enormously, especially by the time children reach the middle grades); and the physical, social, or emotional factors that can so strongly color learning and children's reactions to test-taking that they greatly influence test results.

THE NORMAL CURVE NEEDS LOCAL INTERPRETATION. As a result of the unique nature of the school population in any given school, it is especially important that teachers are not misled in their interpretation and application of the normal curve or national test norms.

The normal probability curve, universally discussed in books dealing with measurement,[39] is a means of depicting the probable distribution of scores. When applied to national achievement tests, the normal curve indicates the way in which scores in the "average" school are likely to distribute themselves. (See drawing, Figure 6:4.) However, the "average" for the nation, based upon a countrywide sample, is a composite score and does not refer to any specific school—nor does it indicate a "standard" which all schools should seek. Every school must determine for itself what constitutes a "good" record in view of its unique pupil population.

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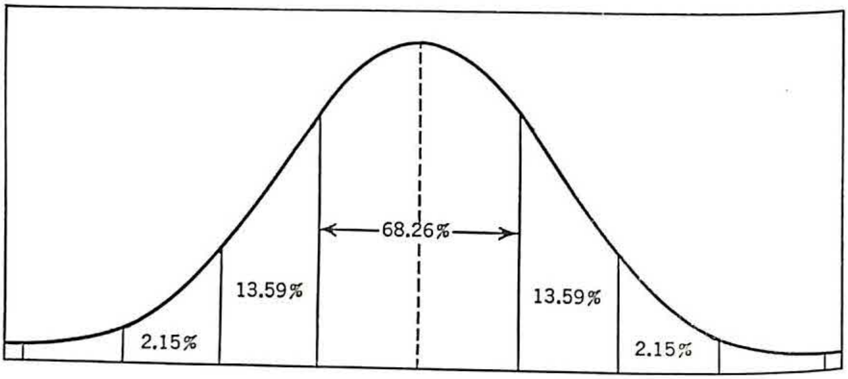
[39] For example, see James M. Bradfield and H. Stewart Moredock, *Measurement and Evaluation in Education* (New York: The Macmillan Co., 1957), pp. 163 ff., or Tyrus Hillway, *Introduction to Research* (Boston: Houghton Mifflin Co., 1956), pp. 206 ff.

Figure 6:4. The Normal Curve



By the same token, the individual teacher should not try to gauge the "failure" or "success" of individual children (or of his teaching!) merely in the light of norms or standards. A group of boys and girls who appear to fare poorly actually may have done exceptionally well in view of their environmental lacks, and, conversely, a high-scoring class may (despite above-average records) be below the level of its potential.

Recognition of the unique "personality" of each school and an understanding of the implications of the local district's status for interpretation of norms are two of the most important features of a sound program of educational measurement.

It seems important, also, to stress the leadership role of superintendents and principals in helping teachers to reach a high level of professional understanding with respect to the values and limitations of tests and testing. This leadership role involves helping the school faculty develop a suitable viewpoint regarding the use of tests, testing procedures, their interpretation, and the action to be taken in view of the findings. The following section might well be used by administrators in checking on their responsibilities, since educational leadership should accept the task of helping teachers develop the requisite personal qualities for participating in the testing program.

THE TEACHER'S PERSONAL REQUISITES. The individual teacher must develop *within* himself a genuinely sound foundation for employing the techniques of educational measurement. No book, in itself, can accomplish this sort of self-education. However, the teacher can do a number of things to help himself become more competent. The proposals that follow suggest some ways in which teachers can develop the sense of security that comes with an understanding of the field of measurement.

(1) Develop at least an introductory knowledge of measurement and statistics—especially if your undergraduate or graduate work here was limited or has grown rusty. Tyrus Hillway's informative little book *Introduction to Research* (Boston: Houghton Mifflin Co., 1956), for instance, has a crisp, simple chapter on "The Language of Statistics."

(2) Read the *Teacher's Manual* provided with the achievement or other types of tests you are to use. Examine the test itself. Study the checking, tabulating, and summarizing procedures. Check at least some of the tests you have administered, even if it is the school's policy to have them scored by an outside agency. For example, determine what types of questions or problems children in your group have most often missed.

(3) Become familiar with some of the publications that help you to understand testing and research: the current *Mental Measurements Yearbook*, edited by Oscar K. Buros (which describes and reviews hundreds of tests), or the latest *Encyclopedia of Educational Research* are excellent sources of information.

(4) Examine the journals that deal with current educational developments, research, and opinion. Several magazines representative of those widely cited in educational writings are:

Elementary School Journal
Journal of Educational Research
Journal of Educational Psychology
Journal of Experimental Education
The Nation's Schools
Educational Administration and Supervision
Review of Educational Research
School and Society
School Review
Research Quarterly
Psychological Bulletin[40]

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[40] For reports on the frequency with which periodicals are cited in research reports and educational writings, see Robert N. Broadus, "The Literature of Educational Research," *School and Society*, 77:8-10, Jan. 3, 1953; and W. D. Wilkins and Lucy Gross, "Usefulness of Educational Periodicals for Research," *School and Society*, 79:9-11, Jan. 9, 1954.

(5) Over a period of time, begin to build your knowledge of well-known research projects and studies: Arnold Gesell's[41] work in child development, Willard Olson's[42] interpretative writing dealing with children's central growth tendencies and organismic age, and the Jersild and Tasch[43] findings on children's interests are representative of studies with which the classroom worker should become familiar. A first-rate foundation for evaluation and measurement depends on a professional background that touches many fields and disciplines bearing on education.[44]

(6) Develop competence in the creation of good teacher-made tests. Such instruments drafted by the teacher are an indispensable adjunct to commercially purchased tests because they can be tailored to the instructional program. Only by preparing tests of his own can the teacher tell how his group is responding to the unique program he has designed for their academic diet.

TESTING IN THE ELEMENTARY SCHOOL SUBJECT AREAS. Most subject areas in elementary schools are well supplied with testing materials, although certain fields, such as arithmetic or reading, are better endowed than, say, science or the arts.

Various subject-matter tests with which the teacher will want to become familiar are discussed in the individual chapters dealing with the social studies, arithmetic, science, and so forth.

WHAT IS AN ADEQUATE TESTING PROGRAM? In order to help the reader coalesce and summarize his thinking with respect to the development of a useful testing program, the following five criteria are suggested. The adequate testing program should at least provide the following:

(1) *Evidence of a given child's native endowment and academic level of achievement.* These two factors are closely related, and information pertaining to them should be studied as a unit. Obviously,

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[41] See, for instance, Dr. Gesell's three volumes covering infancy and early childhood, the five- to ten-year-olds and young adolescents.

[42] See Willard C. Olson, *Child Development* (Boston: D. C. Heath & Co., 1949).

[43] Arthur Jersild and Ruth Tasch, *Children's Interests and What They Suggest for Education* (New York: Bureau of Publications, Teachers College, Columbia University, 1949).

[44] The interested reader is referred to Chapter 3 in *Creative School Administration* by Harold G. Shane and W. A. Yauch (New York: Henry Holt & Co., 1954). The chapter deals at some length with significant research studies of importance to the teacher in curriculum, human development, school organization, teaching skill subjects, etc.

two children at the same reading level should have their achievement viewed in markedly different ways when one has an I.Q. of 90, and the other an I.Q. of 135.

(2) *Evidence of the degree to which children are ready to learn.* Such evidence should reveal maturational patterns. Readiness tests, as in the field of reading, are useful but do not completely picture readiness. Other data from the teacher's observation of the child are important, too: social acceptance, physical development, and speech habits, for example.

(3) *Evidence of the extent to which the child is succeeding in his social relationships.* Sociometric data are potentially useful here if properly interpreted. The adequate testing program, however, makes available to the teacher, as needed, the services of specialists, such as psychiatrists, psychiatric social workers, pediatricians, and school psychologists.

(4) *Evidence of the degree to which the child is developing normally in his physical growth, including information with respect to any physical handicaps that may have interfered with normal development.* While health records and such tools as the Wetzel Grid are helpful, schools also should have access to the advice and service of pediatric and other medical specialists.

(5) *Longitudinal studies of the changes that are occurring in the individual child: mentally, emotionally, socially, and physically.* A piece of information pertaining to a child at a given time is of limited value unless it can be examined with due regard for long-term trends that characterize his progress toward maturity. Teachers need to maintain cumulative records that clarify the child's entire career in the elementary school.

In addition to the qualities of the sound testing program suggested above, one less tangible characteristic requires mention. This is *coordination and intelligent use* of all five elements in a program of continuous guidance, which helps each child on the road to self-realization and social usefulness.

■ Summary

A well-designed testing program does not guarantee a good instructional program, but a good program of instruction is appreciably strengthened by sound appraisal practices. In keeping with this point of view, Chapter 6 was designed to show how measurement, broadly conceived, can serve to strengthen an appraisal of the elementary program.

It was first pointed out that evaluation of the elementary curriculum is closely linked to research and measurement. Research and measurement have not only contributed to the development of evaluation, but all three have played important roles in the process of curriculum improvement.

The major portion of the chapter identified and described many of the tools that are useful in gauging changes in human behavior. Attention also was directed to the role and purpose of testing and to the selection of tests. The chapter concluded with a review of certain principles of sound educational measurement and a suggested basic testing program.

Discussion Questions and Suggested Activities

1. As time and circumstances permit, obtain, examine, and discuss some of the tools and instruments for guiding human development that are reviewed in Chapter 6. Such materials usually are available for examination through public school files, guidance and curriculum laboratories or libraries, and college or university clinics.
2. If available to you, examine the current edition of Oscar K. Buros' *Mental Measurements Yearbook*. What are some of the tests and instruments reviewed in this helpful volume that you may wish to employ in the classroom?
3. When and if feasible, invite the college or university research librarian to explain the use and importance of such standard reference tools as *The Encyclopedia of Educational Research, The Review of Educational Research, Education Index,* and *The Journal of Educational Research.* Perhaps you can also arrange a class tour of the campus library and for the librarian to talk over ways in which to use library resources most efficiently.
4. Examine some of the many test catalogues and test descriptions available through test publishers. (A directory of publishers producing testing materials appears in Appendix D.)

Selected and Annotated Readings

1. Bradfield, J. M., and H. S. Moredock, *Measurement and Evaluation in Education.* New York: The Macmillan Co., 1957.

   A comprehensive treatment of the topic with emphasis on testing and measurement.

2. Fleck, Henrietta, *How to Evaluate Students.* Bloomington, Ill.: McKnight & McKnight, 1953.

   This 85-page pamphlet is well worth the reading. In a very few pages, Dr. Fleck interprets evaluation and in a dozen brief ensuing chapters treats such topics as evaluating attitudes, beliefs, values, personal-social adjustment, critical thinking, needs, problems, interests, etc.

3. Greene, Harry A., A. N. Jorgensen, and J. R. Gerberich, *Measurement and Evaluation in the Elementary School,* rev. ed. New York: Longmans, Green & Co., 1953.

   A broad overview that stresses the use of measurement and includes test interpretation, the use of statistics, and the components of the appraisal of pupil progress.

4. Hillway, Tyrus, *Introduction to Research.* Boston: Houghton Mifflin Co., 1956.

   An excellent and readable foundation volume for the teacher seeking an overview of the research field.

5. Torgerson, T. L., and Georgia S. Adams, *Measurement and Evaluation for the Elementary-school Teacher.* New York: The Dryden Press, 1954.

   Presents interpretations of the evaluation process, the study of individuals, the improvement of instruction through appraisal, and administration of the elementary school program of appraisal.

6. Wandt, Edwin, and G. W. Brown, *Essentials of Educational Evaluation.* New York: Henry Holt & Co., 1957.

   A paperback volume that provides much specific information regarding tests and testing in both the elementary and secondary school. A useful handbook.

7. Wrightstone, J. Wayne, Joseph Justman, and Irving Robbins, *Evaluation in Modern Education.* New York: American Book Co., 1956.

   A college text that treats in detail the nature and scope of evaluation, various techniques, and procedures. Deals with all levels of public education.

PART II

Evaluating the Elementary Curriculum

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7

Interpreting and Evaluating the Curriculum and Instruction

To create a good curriculum—a means or structure for effective living and learning in an elementary school—the evaluator must devise a suitable background of theory. A start has been made on theoretical considerations in Part I of this book. Now, on the threshold of Part II, attention is directed to the nature of the curriculum itself. How can school workers best clothe the body of theory already presented with the garb of effective practice?

As we turn to practice, to the selection or creation of content to be shared with children, we will first clarify the meaning of *curriculum* by studying the various interpretations that have been attached to that word. Then, in the present chapter, various relationships among factors affecting curriculum development will be examined.

Upon this foundation, Chapter 8 will explicitly evaluate the question of what type of curriculum structure seems best for children growing up in American culture. The remaining chapters in Part II will explore ways in which the several curricular areas, such as mathematics and the social studies, can be made even better resources for the promotion of learning than has been true in the past.

■ What Is the Curriculum?

The story is told of a newly employed county school district psychologist who was testing children in a remote mountainous section where educational opportunities were limited and inferior.

"Tell me," the psychologist asked pleasantly of a third-grade child, "if you bought 6 cents' worth of candy and gave the clerk 10 cents, how much change would you receive?"

"I dunno," the lad answered. "I never had ten cents—and candy is something that Ma makes us, anyway."

The psychologist tried another approach. "Well, then, suppose you took ten cows to pasture and six strayed away. How many would you drive home?"

"Heck, mister," the boy responded, "I wouldn't drive none home. I'd be skeered to go home if I let six get lost."

The psychologist persisted grimly. "Let's imagine there were usually ten children here in school but six were out with measles. Now tell me, how many would be left?"

"None, I reckon," the boy replied. "They'd stay away, too, so's they wouldn't catch them measles."

Like the baffled psychologist, many educators go around and around in verbal circles when *they* try to communicate—especially if the curriculum is the topic of conversation. At the root of the problem is the fact that the abstract noun *curriculum* has a number of different meanings. And as a further complication, the same educator may use the word in different ways depending on the situation and his audience. A principal may, for instance, use "curriculum" to mean the sum total of the academic subjects offered by the school when he is speaking to a parent enrolling his child because the administrator assumes that this will be a meaningful use of the word to the new pupil's father. Later in the day, when speaking with a colleague, the same principal may assume a different level of comprehension or insight and imply that "curriculum" also includes many broad experiences over and above conventional subject matter *per se* as he talks about the curriculum including field trips and creative dramatics.

Let us, therefore, attempt to interpret and to evaluate some of the meanings of *curriculum* and the instructional practice toward which they direct the classroom teacher.

At least five prevalent interpretations of the elementary curriculum in educational literature can be isolated for examination.

These are: (1) the subject or subject-centered curriculum, (2) the all-activities-sponsored-by-the-school concept, (3) the socially-derived-needs or social-functions approach, (4) the idea that the curriculum is the design of a social group for educating the young, and (5) the view that the curriculum is psychological and actually has its being "under the skin" of the child and the teacher. Each of the five will be examined. Then an attempt will be made to suggest how those who are engaged presently in curriculum change through evaluation can use all five concepts as they buckle down to the task of making instruction meaningful, effective, and socially significant.

THE SUBJECT CURRICULUM. For a classic definition of the subject curriculum, one may turn to Henry C. Morrison who some years ago identified the curriculum as "the content of instruction without reference to instructional ways or means."[1] This interpretation has the merit of simplicity, and it is supported by long acceptance. As its matter-of-fact name indicates, the subject curriculum is a listing of what subject matter has been chosen to be presented to children and what they are expected to master in order to be well-informed, competent persons in an academic sense.

A great many secondary schools and a considerable number of elementary schools, as shown by their courses of study, have long accepted and continue to use the subject-centered approach to the curriculum. Emphasis is given to helping children acquire the subject content and the skills that the course-of-study designers have assumed to be essential in transmitting to the young the values, ideas, and human accomplishments represented by the term "the cultural heritage." Definite grade placement of preselected and prescribed content generally is a feature of the subject curriculum in such fields as history, geography, civics, mathematics, science, English, art, music, and so forth.

Systematic instruction based upon adult logic and chronological presentation also tends to characterize most subject curriculums. So does sequential use of content in adopted textbooks, teacher assignment of material to be learned, and appraisal of pupil progress through periodic and comprehensive examinations and objective tests.

THE CURRICULUM CONCEIVED AS ALL ACTIVITIES SPONSORED BY THE SCHOOL. Particularly since the 1930's, some curriculum theorists and planners have felt that the time-honored subject curriculum was too narrowly conceived. By 1940, the Lees had proposed a broader interpretation of the curriculum: namely, that it was "those experiences of the child which the school in any way utilizes or attempts to influence."[2]

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[1] Henry C. Morrison, *The Curriculum of the Common School* (Chicago: University of Chicago Press, 1940), p. 58.

A decade later this interpretation was quite widely accepted and paraphrased. Krug, for instance, writes of the curriculum in 1950 as "all the learning experiences that children have under the direction of the school,"[3] and Spears at about the same time speaks of it as "all the activities of the children which the school in any way utilizes or attempts to influence."[4]

From this viewpoint, many elements in school living are given stature and are recognized components of education. School assemblies, school government activities, sports, field trips, dramatics—all are considered to be integral parts of the curriculum. This more recent interpretation has the merit of recognizing that children learn in many ways and from many sources. It also recognizes implicitly that, if the schools are to accept greater responsibility for the *total* human development of the child (emotional, physical, and social as well as intellectual), the *total* school environment must more fully become a resource for the guidance of the maturing child.

At the same time, the "all-activities-of-the-school" approach does not minimize the importance of subject matter. Rather, subject content is accepted as a means—and an important one—to the child's complete development. Supplying children with academic content is not, however, deemed to be the only goal of the program.

Featherstone sharpened the meaning of the "all-activities" interpretation by noting that "It is not very helpful [merely] to say . . . the curriculum consists of all the experiences children have under the guidance of the school. . . ." It is preferable, he noted, to define it as "the limited and selected body of experiences which a school deliberately and intentionally uses for educational purposes."[5]

We may conclude that the "all-activities" concept, as distinct from the subject curriculum, assumes that the school has a broader responsibility for human growth and that it also recognizes that boys and girls learn in many ways and learn many attitudes, habits, skills, and knowledge that are not entirely acquired within a conventional academic framework.

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[2] Dorris and Murray Lee, *The Child and His Curriculum* (New York: D. Appleton-Century Co., 1940), p. 165.

[3] Edward A. Krug, *Curriculum Planning* (New York: Harper & Bros., 1950), p. 4.

[4] Harold Spears, *The Teacher and Curriculum Planning* (New York: Prentice-Hall, 1951), p. 9.

[5] William B. Featherstone, *A Functional Curriculum for Youth* (New York: American Book Co., 1950), pp. 91-92.

THE SOCIALLY-DERIVED-NEEDS APPROACH TO THE CURRICULUM. In the 1930's, yet another approach to curriculum designing was implemented when an influential curriculum was planned in Virginia on a statewide basis. What characterized this important benchmark in curriculum development was the view that man performed certain social functions in his role in the culture. And further, it was concluded that the good curriculum would introduce children to these universal activities (such as earning a living, transporting goods, and protecting health) and offer instruction so that such social functions would be properly performed.

Recently, a refinement of the social functions concept of the curriculum has been made by Paul R. Hanna. In a thoroughly coherent and professionally important interpretation, he has summarized "The Nine Basic Human Activities" and indicated how they may be utilized effectively in the elementary school. Aspects of Professor Hanna's work are presented in some detail, and with appropriate references, in Chapter 11, which treats the social studies. The reader is referred to pages 279-282 for additional information on the basic human activities and the helpful way in which Hanna presents them as a resource for curriculum workers.

Perhaps partly because of the social-functions approach to curriculum planning, and the socially derived needs of children and youth to which they point, some writers, in phrasing definitions, have stressed that the curriculum is an instrument for meeting *social* needs. Smith, Stanley, and Shores, for example, have referred to the curriculum as "A sequence of potential experiences . . . set up in school for the purpose of disciplining children and youth in group ways of thinking and acting."[6] Again, Faunce and Bossing speak of the curriculum as "those learning experiences that are fundamental for all learners because they derive from (1) our common, individual drives and needs, and (2) our civic and social needs as participating members of a democratic society."[7]

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[6] B. Othanel Smith, W. O. Stanley, and J. Harlan Shores, *Fundamentals of Curriculum Development* (New York: World Book Co., 1950), p. 4.

[7] Roland B. Faunce and Nelson L. Bossing, *Developing the Core Curriculum* (New York: Prentice-Hall, 1951), p. 4.

Insofar as the above definitions or interpretations are concerned—and they are given out of context—it seems reasonable to conclude that there is relatively little difference between the "all-activities-of-the-school" concept of the curriculum and the socially-derived-needs concept *except* for the fact that the latter definitions emphasize the child *in society* or in his socio-cultural milieu. Both sets of definitions give heed to the comprehensive nature of curricular experiences, as distinct from the curriculum as "the content of instruction" (or subjects) in isolation from the totality of the child's life in school. The socially-derived-needs interpretation, however, seems to enhance the importance of the teacher and other curriculum designers as determiners of what experiences shall be shared with the young so as to equip children to function in society.

THE CURRICULUM AS THE DESIGN OF A SOCIAL GROUP FOR THE EDUCATIONAL EXPERIENCES OF THEIR CHILDREN IN SCHOOL. A useful and relatively new statement of the meaning of curriculum has been proposed by Beauchamp. He suggests that it be defined as "the design of a social group for the educational experiences of their children in school."[8]

A unique quality of this concept is its universal application to all types of curriculums previously mentioned—a quality that undoubtedly contributes to the utility of the Beauchamp definition. "The design of the social group" develops clarity and content because it is predicated on certain views:

(1) The elementary school is created by a social group; therefore, it must serve social purposes.
(2) Social purposes in a democracy are determined by a consensus of the membership of a group and not by any special segment of the group or by any individual.
(3) Professional personnel (teachers, administrators, and so forth) must be sensitive to the will of the people in order to carry out common policies cooperatively derived.
(4) It is the task of the elementary school in particular to help society induct its youth into the culture of which they are a part.
(5) The nature of the assistance that the school renders society must be determined democratically by all members of the society that the school is destined to serve.
(6) The function of professional personnel is to exert leadership that will help the total community determine the nature and scope of the cur-

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[8] George A. Beauchamp, *Planning the Elementary Curriculum* (New York: Allyn & Bacon, 1956), p. 41.

> riculum, and to act as professional technicians in devising and executing a concrete plan for carrying out cooperatively determined decisions.[9]

Beauchamp's six basic principles indicate that his interpretation of the curriculum design of a social group is cooperative and based on democratic discussion, evaluative procedures, and consensus. At the same time, his versatile definition, out of the context of his guiding principles, could be stretched to apply even to the subject-centered curriculum as it is drawn up by a small "social group" in a central curriculum division of a school system, which is responsible to the superintendent only rather than directly to the total community group. In other words, values or principles of a cooperative nature should be involved in order to endow this interpretation with its intended meaning.

THE PSYCHOLOGICAL CURRICULUM. All the interpretations of the curriculum heretofore reviewed presumably eventuate in a planned guide or in a source of study that suggests curricular experiences and/or explicitly specifies required subject content. When dealing with the curriculum, we must also give careful attention to the fact that the curriculum is not merely what can be written down but is, in a very real sense, the interpretations that teachers and children make *within themselves* of the experiences and the learnings that occur in the school milieu. This inner or "under-the-skin" curriculum is the psychological curriculum—a real curriculum, but one that must be sensed rather than seen.

With respect to this inner curriculum, Hopkins states that "The curriculum represents those learnings each child selects, accepts, and incorporates into himself to act with, in, and upon in subsequent experiences."[10] Since the evaluator, in the precise meaning of the term *evaluation,* is concerned with the guidance of socially desirable behavioral change, he is also automatically confronted with the need to concern himself with the under-the-skin or private inner behavioral world of childhood.

A genuinely perceptive writer, Pickens E. Harris, captured the concept of the psychological curriculum years ago when he noted that:

> . . . real curriculum development is individual. It is also multiple in the sense that there will be as many curriculums as there are teachers and

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[9] *Ibid.,* pp. 12-13.

[10] L. Thomas Hopkins, *Interaction: The Democratic Process* (Boston: D. C. Heath & Co., 1941), pp. 39f.

separate groups of children. More than this, there will be a curriculum for each child—that series of activities and experiences that he pursues under guidance.[11]

The psychological curriculum may be defined, then, as *the sum of the experiences—the learnings, skills, habits, and attitudes—that the child has made a part of himself, and that govern his behavior, as a result of the environment provided by the school.*

No really profound, adequate evaluation of the elementary school is possible without an awareness of the inner or psychological curriculum, since it is the core of the child's socio-intellectual behavior that the school continuously seeks to modify and to improve. All written curriculum structures and guides are means intended to improve the private inner worlds of children in order to achieve the citizenship goals of the school.

WHAT IS THE CURRICULUM? At the outset of this section, the question implied was, "What *is* the curriculum?" An offhand answer might be, "It is a term that means different things to different people, and the only way to get an answer is to ask the person using the word to tell you what he means." But this certainly is a facetious solution.

Actually, the term *curriculum* can be classified if the several interpretations above can be considered as *complementing* one another rather than as *conflicting* one with the other. Such a reconciliation of the five concepts seems a promising foundation for the evaluator to use in order to build a program and at the same time escape from the semantic maze of multiple interpretations.

We, therefore proposed that the following answer be made as to the meaning of curriculum: "Curriculum is a term with several meanings, each of which complement the other and which, when taken together, result in a workable interpretation."

The curriculum *is* (1) the design of a social group for the educational experiences of their children. But incorporated in this design *is* (2) subject content and (3) educative experiences that extend beyond the confines of subjects and study skills to include the guidance of children through many activities sponsored by the school for instructional purposes. These explicitly *include* (4) provision for understanding social functions and for individual academic-emotional-physical needs and social needs in a democratic society—that is, the disciplining of youth in ways of group thinking and acting as are suggested by values that emerge through cooperative planning. Finally, (5) the curriculum has its being in two separate but interrelated entities: first, in written form as a record of group consensus as to methods, materials, scope, and sequence; and second, under the skin of both teacher and child as the sum of the experiences and guides-to-action that each has interpreted for himself as the outcome of their interactive living and learning together in school.

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[11] Pickens E. Harris, *The Curriculum and Cultural Change* (New York: D. Appleton-Century Co., 1937), p. 443.

No one interpretation of the curriculum is complete without due regard for the other four concepts discussed. Ways in which all the interpretations can be sharpened and translated into practice will be explored in the next chapter and in the subsequent chapters that treat the various subject matter areas.

QUALITIES OF THE DESIRABLE CURRICULUM. As interpreted by the authors of this book, the desirable curriculum has a number of interrelated qualities. They are reflected in the guides or handbooks prepared for use in the school system and are strengthened by appropriate resource materials, such as textbooks, reference materials, and various other teaching aids—films, globes, maps, and electronic equipment. At the same time, the sound curriculum is greatly influenced by the psychological and developmental understandings of teachers as to educational objectives, skills, and knowledge to be shared with children and the psychologically created interpretations of experience germinating and growing in the mind of every child. Curriculum, instruction, and learning are to be conceived as interdependent factors operating in a dynamic field of human interaction in classroom and school.

At the risk of some repetition, we think it important to stress that evaluation of the curriculum focuses on such questions as:

(1) What is the nature and merit of the goals and purposes that children *themselves* are motivated to achieve by the *school's* objectives?
(2) What inner behavioral patterns are the pupils forming?
(3) How meaningful to *them* is their learning in the various areas of school experience?
(4) What evidence is there to indicate that boys and girls are maturing in ability to solve problems at their age/ability levels? To use reading and language critically and well? To apply whole-home value-judgments in decision-making? To accept greater

responsibility for the direction of their self-education under the guidance of the school?

Some Factors Influencing Curriculum Development and Appraisal

Let us look now at elements that influence the interpretation of the curriculum in the local school system as a faculty and others concerned appraise, develop, and reappraise the emerging design of children's experiences in school.

EDUCATIONAL LEADERSHIP. For better or worse, a school system is a manifestation of the quality of leadership that has functioned over a period of years. Such leadership, in desirable circumstances, is an outgrowth of group interaction; an outgrowth of an environment that encourages all persons concerned with the schools to contribute to curriculum planning. Ideally, leadership in developing the curriculum does not stem primarily from one individual or a few individuals in administrative or supervisory positions; it stems from *ideas*. The "leadership of ideas" rather than of persons implies a "school climate" in which group processes are used, in which discussion is encouraged, and in which the individual feels free to express his best thinking with the sure knowledge that his views will have the hearing that their quality merits. He also realizes, with full confidence, that his views may influence the outcomes of group planning of the curriculum.

Persons in status leadership positions—superintendents, consultants or supervisors, and principals—might very well accept as a major criterion of their professional effectiveness in curriculum development the success with which they set free the creative power of the group at work on curriculum evaluation. Nevertheless, administrative/supervisory leaders should be a vital source of ideas, not merely genial referees for faculty discussions. Certainly, educational leadership, in both a *personal* and a *group* sense of the term, govern curriculum planning. This was clearly evident in Chapter 3, which discussed the interactive evaluative process in operation.

THE TEACHER. The status and role of the teacher patently influence curriculum development and appraisal. His vigorous contributions to planning—or their absence—has much to do with both the interpretation of what constitute desirable learning experiences and the way these are implemented in the classroom.

Strong implementation of the curriculum through the work of the individual teacher is likely

(1) when his work in the classroom reflects an awareness not only of the recommendations of a curriculum guide for his grade level but of the comprehensive educational program of the school as a whole;
(2) when he presents and shares activities, materials, and content with children with due regard for individual readiness, motivation, and interest;
(3) when his instructional methods enable pupils to learn subject matter that is psychologically meaningful and acceptable to them;
(4) when he observes and diagnoses the developmental behavior of children and finds therein clues for their further guidance to insure correction of faulty learnings or poor work-study skills;
(5) when he assists pupils in understanding and accepting the highest qualitative standards consistent with their ability; and
(6) when he adeptly guides boys and girls *to* and *through* situations in which they develop skill in purposeful planning and decision-making that gives meaning to democratic living.

THE COMMUNITY MILIEU, PARENTAL VALUES AND ASPIRATIONS. The community milieu, including parental attitudes, is a third importance force or factor in the realm of curriculum development and of bringing such planning to fruition. Some communities are wealthy, some are poor; some are receptive to educational change, some are conservative. Each has many similarly varied and sometimes conflicting characteristics. The status of the community with respect to its traditions, folkways, and readiness for and insight into curriculum change must be carefully weighed by the faculty, once this group has clarified its understandings of the term *curriculum*.

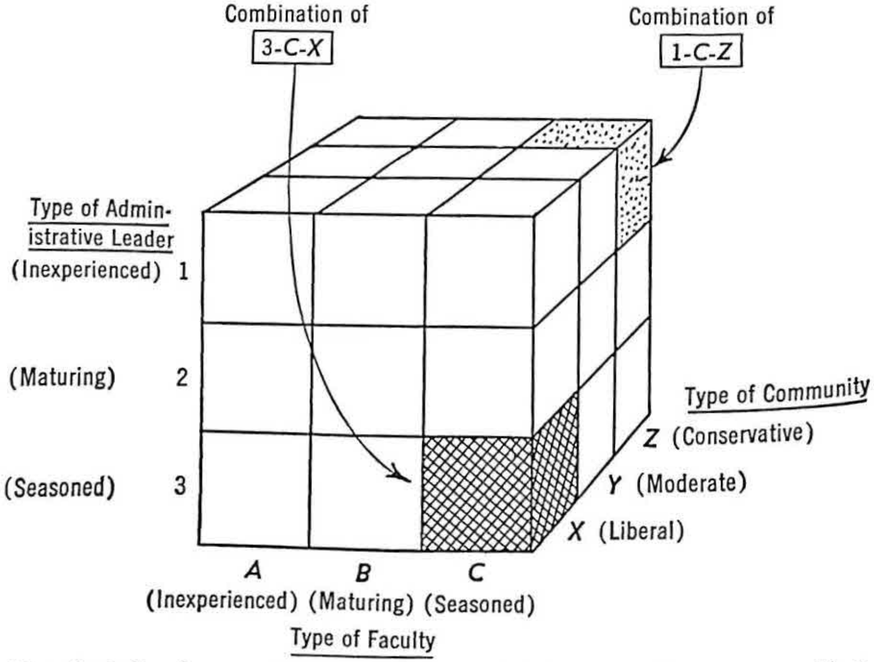
An appraisal of the unique conglomerate qualities from which the "personality" of a given community are derived is, indeed, as important in curriculum planning as is the personality of the individual child when the teacher works with him in applying the curriculum design or when the teacher shapes his inner curriculum interpretations as this child interacts with the teacher and his peers, with methods and with materials of instruction in the classroom.

DEALING WITH VARIABLES IN EDUCATIONAL LEADERSHIP, TEACHER QUALIFICATIONS, AND COMMUNITY MILIEU IN CURRICULUM EVALUATION. Why has attention been directed above toward the several variables that, the writers contend, must be considered when a faculty and others are concerned with the curriculum? It is because what is "right" and "good" in a specific situation in which the staff is involved in interpreting, planning, and evaluating the curriculum is somewhat dependent upon the existing relationships among such variables as the maturity of leadership and of the faculty and the attitude of the community toward educational change.

Consider Figure 7:1. Here, through the use of a three-dimensional drawing, an effort is made to offer an oversimplified but graphic portrayal of how divergent types of administrative leadership, faculty maturity, and community background may combine to govern the speed, the nature, and even to some degree the processes and outcomes of curriculum planning at a given time.

The shaded cube at the lower right represents a confluence of desirable requisites for satisfying progress in curriculum development. Here are combined a seasoned or mature administrative leader (3), a seasoned faculty (*C*), and a community (*X*), which is open-minded

Figure 7:1. A Graphic Portrayal of Certain Simple Combinations of Maturity in Educational Leadership, Faculty Maturity of Experience, and Community Attitudes that May Influence Curriculum Planning.



The shaded cube represents a *seasoned* administrator (3) working with a *seasoned* faculty (*C*) in an *educationally liberal* community (*X*). The dotted cube represents an *inexperienced* administrator (1) working with a *seasoned* staff (*C*) in an *educationally conservative* community (*Z*).

or liberal in its attitudes toward educational innovations. Clearly, the prospects here seem first rate with respect to wholesome and dynamic program improvement—although the diagram does not show certain other factors and variables, such as availability of school funds, stability of population, and comparable considerations in educational planning.

Now look at the dotted cube at the upper right. Here an inexperienced or immature administrator (1) is teamed with a seasoned staff (*C*) but in an educationally conservative community (2). There may be less certainty in the leadership provided, and the administrator in these circumstances may need time to learn how to work effectively with the mature staff—and to learn from the staff. Also, the matter of building readiness, participation skills, and acceptance of desirable curricular change on the part of the community may require a more gradual approach in community *Z* than was necessary with respect to community *X*.

As they engage in curriculum evaluation, school workers need to appraise the variables that make their school district unlike all others once they have determined their understanding of the term *curriculum* and after they have established the values and goals they seek through curriculum change. Sound educational goals are basically similar the country over, because the nature of childhood, the citizenship requirements of a dynamic democracy, and the nature of learning are similar. Yet each community must assess, in view of its own variables, the particular next step the local staff should take to bring about program improvement.

The next chapter moves forward from this point. It confronts the reader with the various choices he can make in seeking to improve children's educational opportunities and presents the writers' views as to the direction in which progress lies.

■ Summary

Some meanings of *curriculum* were examined in Chapter 7. These included the time-honored view that *curriculum* referred to content as well as newer interpretations suggesting that it encompasses all the potential experiences selected by the school as means of improving the progress children make toward maturity. Stress was placed on the need to recognize the curriculum as a cooperatively developed social design for children's school experiences. Next it was indicated that those who evaluate the curriculum need to be alert to the fact that the curriculum is not only a written document but that it exists within teachers and children in the form of the interpretations that each has made of his experiences in school and the effect such experiences have on his behavior. Subsequently, an attempt was made to show that all five concepts of curriculum that were discussed contribute to the individual's understanding of the term.

A sampling of diverse factors that have a bearing on curriculum development—the quality of leadership, the status of teachers, and the character of the local community—also was presented. The suggestion was made that steps taken in program development are often powerfully influenced by circumstances in the local school district.

Discussion Questions and Suggested Activities

1. Obtain, or examine in your college curriculum laboratory, a sampling of courses of study and curriculum guides. Which interpretation of the term *curriculum* does each of these publications reflect?
2. If they are available, examine curriculum materials prepared during the last four or five decades. What are some of the historical changes in the nature and purposes of such materials?
3. Share with others in the group some of your personal experiences in the classroom that have helped you better to understand the "private worlds" or "under-the-skin" behavior of children.
4. In group discussion, describe some of the communities with which you are familiar and indicate how children's experiences in these districts differ because of their different socio-cultural and economic environments.

Selected and Annotated Readings

Read in one or more of the ten books dealing with the curriculum that appear as footnotes in Chapter 7. These volumes are, in effect, annotated in the text of this chapter.

Other valuable books dealing directly or indirectly with the elementary curriculum, and which you may wish to examine, include:

1. Anderson, Vernon E., *Principles and Procedures of Curriculum Improvement.* New York: The Ronald Press, 1956.

   A comprehensive book with emphasis on considerations and processes in curriculum development.

2. Beck, Robert H., W. W. Cook, and Nolan C. Kearney, *Curriculum in the Modern Elementary School.* New York: Prentice-Hall, Inc., 1953.

   Foundations, structure, and development of the curriculum are thoroughly explored by the authors.

3. Caswell, Hollis L., *et al, Curriculum Improvement in Public School Systems.* New York: Bureau of Publications, Teachers College, Columbia University, 1950.

   An examination of the changes in the curriculum, suggestions for further improvement, and valuable descriptions of actual curriculum programs in educationally interesting school systems.

4. Ragan, William B., *Modern Elementary Curriculum.* New York: The Dryden Press, 1953.

   A solid, basic text encompassing foundations, organization, practices in subject areas, and curriculum appraisal.

5. Saylor, J. Galen, and William M. Alexander, *Curriculum Planning for Better Teaching and Learning.* New York: Rinehart & Co., 1954.

   A broad and authoritative volume that includes theory, process, practice, and appraisal.

8

An Appraisal of the Structure of the Curriculum

It is relatively easy to discuss various theoretical interpretations of the term *curriculum* in the unhurried atmosphere of the college classroom. It is quite another matter, however, to reach decisions as to how to put theory into practice in public school situations. The present chapter takes a searching look at decisions that must be made before theory can be translated into action for curriculum improvement, and also appraises various approaches to curriculum organization in the elementary school.

■ The Curriculum as a Means to Self-education

When appraising the curriculum and discussing how it can better serve as a means of achieving the school's citizenship goals for children—that is, educating children so that they are of use to themselves and to society—we must keep one point clearly in mind. *The curriculum is a means to the child's self-education.* In one sense we do not actually *teach* children at all. Rather, we work to create learning situations within a curriculum structure in which each child is encouraged to *learn* to the best of his ability. The effective curriculum thus becomes a tool for the child's self-education. Therefore, the curriculum is most accurately evaluated in terms of its success in challenging and helping each child to make *himself* an effective human being.

Since the curriculum should be judged in view of its success in creating desirable changes in boys' and girls' social and intellectual behavior, the school workers have a useful criterion or yardstick for curriculum planning. Program improvement consists of psychologically sound curriculum changes that create situations that make the child more capable of self-education through the activities planned with and for him.

In Chapter 7 we pointed out that there are a number of interpretations of the term *curriculum.* It may be identified with subject matter and codified as a course of study, for example. Again it may be broadly interpreted as all the experiences of children sponsored by the school. Or the useful and comprehensive interpretation suggested by Beauchamp may be applied so as to encompass and describe all definitions: namely that curriculum refers to "the design of a social group for the educational experiences of their children in school."[1] Whatever interpretation or definition a school district decides to apply to the curriculum, the ultimate measure of its success is the way in which it serves to improve the child's inner being; the interpretations and uses he makes of his inner "psychological curriculum," which is the sum of the learnings and behavior that his school experiences have helped him to acquire.

The child's under-the-skin curriculum, naturally, is the product of *any* types of instructional procedures the school employs. *Some* kind of inner curriculum is built through the most rigidly formal course of study, even as it is through the unstructured type of teacher-pupil planning in which learning is designed and directed by the teacher and the classroom group on a day-to-day or week-to-week basis without reference to pre-established and required scope and sequence. The real question at issue is "What *kind* of experiences will most adequately help to make the child's inner or psychological curriculum the best possible one for *him?*" And this question patently is one of the most important that a school faculty must explore as it discusses the structure proposed for the local curriculum.

What, then, is the best way to help the child to build his own inner curriculum? As a school staff faces the question, "What type of curriculum, design or plan shall we develop?" it is helpful, as noted above, to ask, "What interpretation of the curriculum seems most likely to effect the changes in children's behavior that we seek?"

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[1] George A. Beauchamp, *Planning the Elementary School Curriculum* (New York: Allyn & Bacon, Inc., 1956), p. 41.

To find an answer to this question, the faculty must necessarily examine its beliefs as to the purpose of education and, at the same time, clarify its views as to the philosophy of education that most nearly appears to lend itself to the attainment of this purpose. There are a number of philosophical positions that bear on the question of the purpose of education, and teachers must, whether consciously or unknowingly, choose among these philosophies before they can begin to construct the curriculum. This point requires the considerable elaboration that follows.

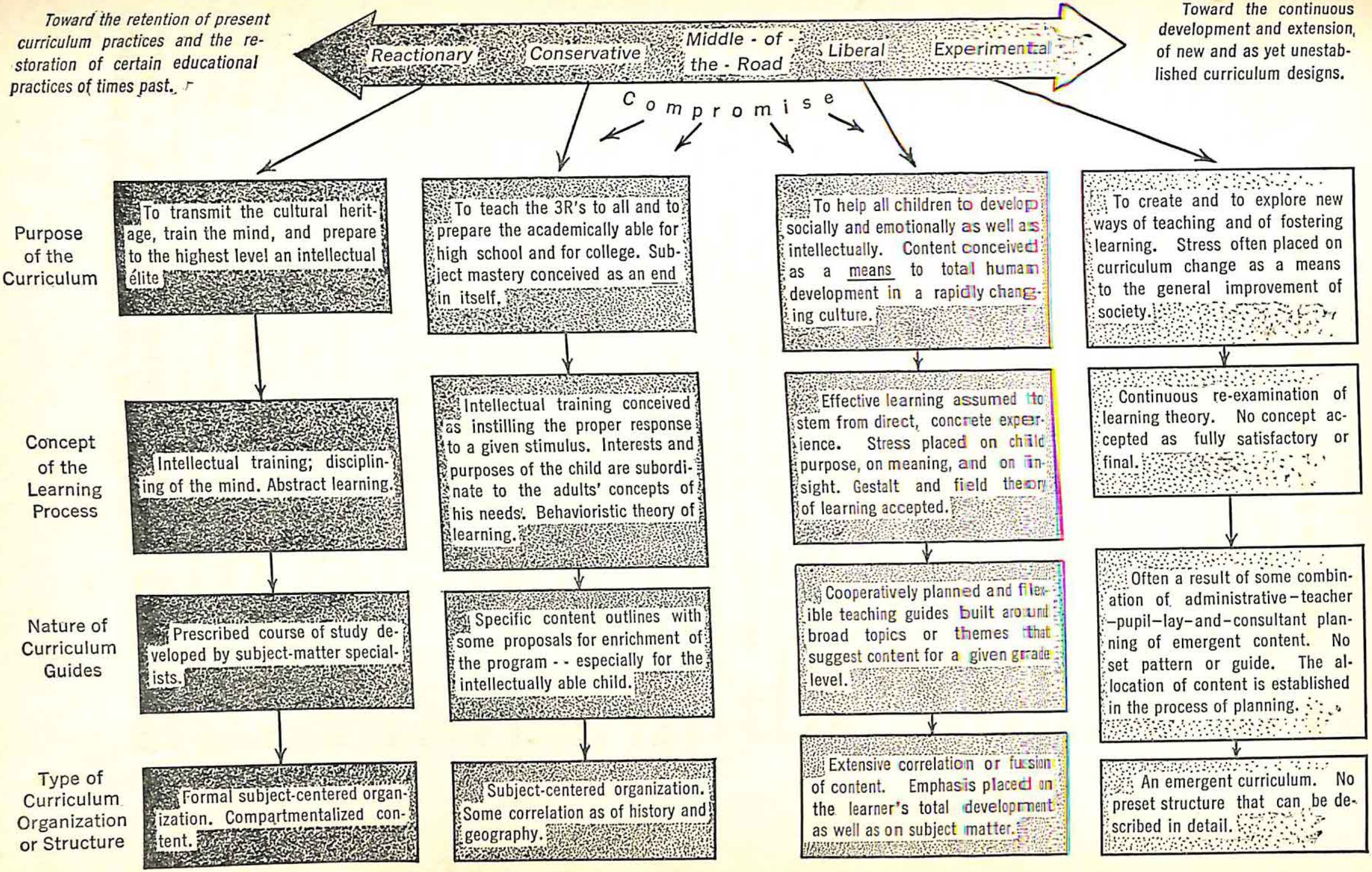
■ The Teacher's Choices among Philosophical Positions That Govern Curriculum Designs

In general, five educational viewpoints or philosophies govern curriculum planning. As shown in Figure 8:1, these are the reactionary, the conservative, the middle-of-the-road, the liberal, and the experimental positions. Let us examine in turn each of the choices the teacher may make among these five competing viewpoints as he decides for himself *what* children shall have an opportunity to learn, *when* they shall learn it, and the circumstances that shall govern *how* they learn it, and *how* they put it to use.

THE REACTIONARY OR CLASSICAL CHOICE. Some teachers believe that the curriculum should be interpreted as consisting only of the subjects children are taught, and therefore they desire to *return to the past* when this subject-centered concept of curriculum was prevalent. These teachers feel that their main job, if not their only job, is to see that children acquire content and score well on subject-matter tests. The good school, as they see it, is the school of 60 or 70 years ago in which there was no "nonsense" about guiding human development or life adjustment.

The term *reactionary,* then, as used here, is not intended as an epithet but as descriptive of those who react against some trends of recent decades. This "reactionary" position is characterized by: (1) the implicit concept that the mind should be trained and that there is a mental disciplinary value in training the mind to cope with arduous intellectual tasks; (2) that curriculum planning should be done by experts in subject matter who bring adult logic to bear on the organization of content, (3) that planning is done by the teacher with due

Figure 8:1. Divergent Viewpoints as to the Purpose of the Curriculum and the Concepts and Practices toward Which They Point



Toward the retention of present curriculum practices and the restoration of certain educational practices of times past.

Toward the continuous development and extension of new and as yet unestablished curriculum designs.

Purpose of the Curriculum	To transmit the cultural heritage, train the mind, and prepare to the highest level an intellectual élite	To teach the 3R's to all and to prepare the academically able for high school and for college. Subject mastery conceived as an end in itself.	To help all children to develop socially and emotionally as well as intellectually. Content conceived as a means to total human development in a rapidly changing culture.	To create and to explore new ways of teaching and of fostering learning. Stress often placed on curriculum change as a means to the general improvement of society.
Concept of the Learning Process	Intellectual training; disciplining of the mind. Abstract learning.	Intellectual training conceived as instilling the proper response to a given stimulus. Interests and purposes of the child are subordinate to the adults' concepts of his needs. Behavioristic theory of learning.	Effective learning assumed to stem from direct, concrete experience. Stress placed on child purpose, on meaning, and on insight. Gestalt and field theory of learning accepted.	Continuous re-examination of learning theory. No concept accepted as fully satisfactory or final.
Nature of Curriculum Guides	Prescribed course of study developed by subject-matter specialists.	Specific content outlines with some proposals for enrichment of the program - - especially for the intellectually able child.	Cooperatively planned and flexible teaching guides built around broad topics or themes that suggest content for a given grade level.	Often a result of some combination of administrative–teacher–pupil–lay–and–consultant planning of emergent content. No set pattern or guide. The allocation of content is established in the process of planning.
Type of Curriculum Organization or Structure	Formal subject-centered organization. Compartmentalized content.	Subject-centered organization. Some correlation as of history and geography.	Extensive correlation or fusion of content. Emphasis placed on the learner's total development as well as on subject matter.	An emergent curriculum. No preset structure that can be described in detail.

regard for the course of study or texts prepared by experts, and (4) that the curriculum should be subject-centered.

Those who choose to return to the educational position of four or more decades ago conceive of the elementary school as an academic foundation for a college-preparatory type of secondary school program. They see little if any place in the curriculum for vocational or recreational activities or for the so-called "extras" (for example, creative dramatics and hobby clubs) and feel that the program is to be planned primarily for the academically prone child who can profit from an intellectually demanding program. There is, figuratively speaking, no place for the slower learner in the reactionary program, and he presumably repeats the grades he has failed and is dropped if he ultimately does not succeed in meeting the academic standards.

The reactionary position also tends to stress classical content with special respect shown for languages, mathematics, and formalized science. Such emphases are assumed to produce, over a period of time, the trained minds needed for leadership in our present complex era—a type of élite intellectual leadership that can think for and direct the less able citizen who fails to come up to the school's standards.

The reactionary position as thus characterized should not be taken lightly or subjected to scoffing. By the middle 1950's, it had found many advocates and undoubtedly brings with it a security of sorts to teachers and citizens in general who seek to find comfort in a "tried and true" curriculum that presumably produced many men and women who helped to make the United States a great nation.

THE CONSERVATIVE OR SUBJECT-MATTER ESSENTIALS CHOICE. A second philosophical option open to curriculum plannners is that of choosing to develop a conservative program. The conservative or essentialist school is one that rarely or never tries out an innovation until it has been tested and retested many times and has become thoroughly familiar and recognized as academically respectable. The very term *conservative* suggests a retention of what was on the way to being well established a decade or two earlier.

In practice, the conservative curriculum is characterized by: (1) the view that there are certain fundamentals to be learned and that the mind, while it cannot be toughened merely through intellectual exercise, can be trained to make an expected or correct response to the appropriate stimulus. Deliberately or unwittingly, the conservative position tends to accept a behavioristic or connectionistic theory of learning and seeks to condition the learner to respond correctly to life's challenges and problems by remembering and applying the "right" answer at the "proper" time.

Other characteristics of the conservative position are: (2) that curriculum planning should involve the organization of subject matter so that preselected academic essentials shall be taught at the right grade level, and (3) that lesson planning is done by the teacher *for* rather than *with* children. As in the case of the reactionary program, the conservative school's curriculum is subject-centered, but the conservative philosophy may allow for certain correlations, such as teaching American folk-music in conjunction with a study of the Westward Movement or relating the teaching of the geography and history of Africa.

The conservative choice with respect to the curriculum and teaching methods was succinctly summarized by a distinguished essentialist, William C. Bagley, back in 1940.[2] Bagley said, in part, (1) that while interest motivates the learner, practically all higher interests grow from efforts to learn that were not at the outset appealing in themselves; (2) that adult responsibility for the guidance, control, and direction of the child is inherent in human nature; (3) that the adult, in the interest of the child's future, must induct him into his heritage of culture; and (4) that essentialists emphasize the prime significance of subject matter.

In practice, if not in theory, many elementary schools have tended to accept the conservative choice of curriculum practices centered around fundamentals or the 3 R's as described in Bagley's remarks. The main differences between the conservative or essentialist choice and the reactionary or classical choice of curriculum is one of emphasis than in their long-range objective of subject matter mastery as a basis for personal competence. The reactionary position seeks particularly to train intellectual leaders of such brilliance that they are equipped both to think for and to lead the masses of less able people. The conservative-essentialist position, while stressing the traditional subject-centered curriculum, is less classically oriented and focuses on mastery of the fundamentals by all children.[3]

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[2] William C. Bagley, "The Crux of the Conflict between the Progressives and the Essentialists," lecture to the Omega Chapter of Phi Delta Kappa, University of Michigan, July 16, 1940.

[3] For a challenging elaboration of these and other philosophies, see Theodore Brameld, *Philosophies of Education in Cultural Perspective* (New York: Dryden Press, 1955), Ch. 3, esp. pp. 74 *ff*.

THE MIDDLE-OF-THE-ROAD CHOICE. A number of teachers will find the *middle of the road* a comfortable place to be after they have examined various possibilities for developing the curriculum structure of their school system. In a sense, this choice among the five positions is a compromise. The school in the middle position, curriculum-wise, is not interested in pioneering and exploiting newly minted ways of helping children educate themselves, but neither does it resist change by striving to retain or conserve the status quo or to return to practices of an earlier era. Because the middle-of-the-road school is one that chooses curriculum practices that are well on the way to acceptance, it cannot be characterized as having a unique point of view or emphasis with regard to the curriculum. Rather, the middle-of-the-road curriculum is one that mirrors the practices that were tried out a decade or two earlier in more liberal schools and that, by the fact of their survival, have become so respectable as to be put in operation without creating a furor in the local community.

In a sentence, the school in the middle of the road of today is an embodiment of the more promising ideas of yesterday.

THE LIBERAL CHOICE. The school that has the curriculum philosophy here designated as *liberal* is one in which the faculty has chosen deliberately to look for newer instructional practices that seem likely to help children learn more efficiently and that permit the school to guide more effectively the total development of the individual child. Teachers who have chosen to institute a liberal approach to curriculum planning are eager to try out promising ideas even though these may not have been thoroughly tested and may in some cases prove so lacking in merit as subsequently to be dropped.

Within the framework of the liberal curriculum, it is often held (1) that the mind is the product of experience and that experience must be relived and critically reconstructed in the light of new experience; (2) that curriculum planning is social and cooperative, involving administrators, teachers, children, and at least some measure of lay participation; (3) that the daily interpretation of the curriculum in the classroom is done *with* children rather than *for* children, and (4) that the focus of the curriculum is on the learner rather than on the subject *per se*.

The content of the liberal curriculum is not rigidly prescribed, hence considerable latitude is left within which the teacher can exercise professional judgment in determining what and when and how children organize and absorb subject matter. It follows that liberal curriculum guides are flexible and offer suggestions, summarize resources, and encourage initiative rather than provide explicit direction and specify minimum requirements.

The liberal school sometimes has been referred to as "progressive," but teachers use the term *progressive education* ever less commonly because it has lost so much of its clarity of meaning. To some critics of education and to many laymen, "progressive" practices are synonymous with poor discipline and fuzzy educational thinking. For this reason, the term should be interpreted to one's listeners when used, lest it lead to misunderstanding.

THE EXPERIMENTAL CHOICE. Over the years there have been a few schools that genuinely deserve the label *experimental*. When one chooses this philosophical position and the approach that it implies for curriculum designing, he commits himself to a policy of deliberately generating and trying out new educational practices. To the true experimentalist there is no fixed or ultimate conception as to the nature of the curriculum and its planning. His answers are found as he continually applies intelligence to the process of trying out ideas that appear to be promising.

In the last several decades, the experimentalists have generated many of the innovations that have seeped into curriculum practice in liberal school situations: the idea of mind as something created through experience, emerging teacher-pupil planning, self-selection of content by pupils in permissive atmospheres, the application of principles of group dynamics, and new dimensions of teaching methods, for example. Often the experimental approach does not involve an entire staff but is carried out by a few teachers operating in a liberal program that encourages them to break free of conventional educational thinking. Also, some contributors to the experimental approach to the curriculum are not classroom teachers at all but research workers or scholars engaged in the professional study of education through research.

THE INDIVIDUAL TEACHER'S CHOICE. As the individual teacher on an elementary school faculty strives to decide on the point of view that will govern his curriculum thinking, he may find it helpful to examine the diagrammatic summary of philosophical viewpoints presented in Figure 8:1. This drawing is intended to compare graphically the teacher's possible choices with regard to the curriculum and to help him decide which concept of teaching and learning is most consistent with his values.

If it be accepted that the "real" curriculum is inside the child, that it is the *child's own* interpretation of *his* experiences in school, then the teacher must answer for himself the question: "Which of the possible designs of a social group for the educational experiences of children will best help the individual child to educate himself?" The following appraisal of various organizational structures of the elementary curriculum is offered with deep conviction—but with no intent to abrogate the right of the faculty and the individual teacher to plan with complete independence the kind of program toward which their values direct them.

An Appraisal of Types of Curriculum Organization

THE SUBJECT-CENTERED CURRICULUM. The subject-centered curriculum has as its focal point the various bodies of subject matter that it is assumed children should master as they move through the elementary school. As suggested in Figure 8:2, the content of this curriculum may be visualized as an inverted cone. After the informal social living of the kindergarten, children experience an increasingly preplanned scope and sequence in the program which, by the third- or fourth-grade level, has taken on clear-cut form with various periods scheduled for arithmetic, science, geography, history, language work (such as usage and spelling), and the several special fields (such as music).

Able teachers working within the framework of the definitely structured subject curriculum do not ignore the developmental growth of children. However, as noted in the diagram, research findings pertaining to human growth and development and to the learning process are a *peripheral* rather than the *focal* concern of the school dedicated to transmitting the cultural heritage. Principles of human development, of course, are deemed important insofar as they expedite learning. The same generalization applies to the social milieu or cultural environment. As implied in the drawing, the subject curriculum takes cognizance of the fact that children's cultural backgrounds vary, but this awareness is stimulated more by the fact that children's divergent environments complicate the teaching process than by the desire to create cultural change through work with children.

AN EVALUATION OF THE SUBJECT-CENTERED CURRICULUM. The reactionary and conservative philosophies, or viewpoints, as to what constitutes the good curriculum are subject-centered. It follows that an evaluation of the subject curriculum is also an appraisal of these two positions.

Indisputably, the proponents of the subject curriculum can make a strong case for an adult-planned structure or framework within which to organize learning. The *intelligently organized* subject-centered curriculum has at least the following merits:

(1) It provides a symmetrical approach to scope, or breadth, and sequence, or order, of subject matter from one grade level to the next.

(2) It helps to insure that the cultural heritage and foundational skills are presented and reviewed throughout the elementary school.

(3) At such a time as the present when teachers are not always adequately prepared, the subject-oriented curriculum provides concise direction. It also gives a sense of security to those teachers who feel most comfortable when they have a clear statement of what is to be taught.

(4) It lends itself to such objective measurement as is afforded by standardized achievement tests.

(5) It defines the individual teacher's responsibility with respect to content.

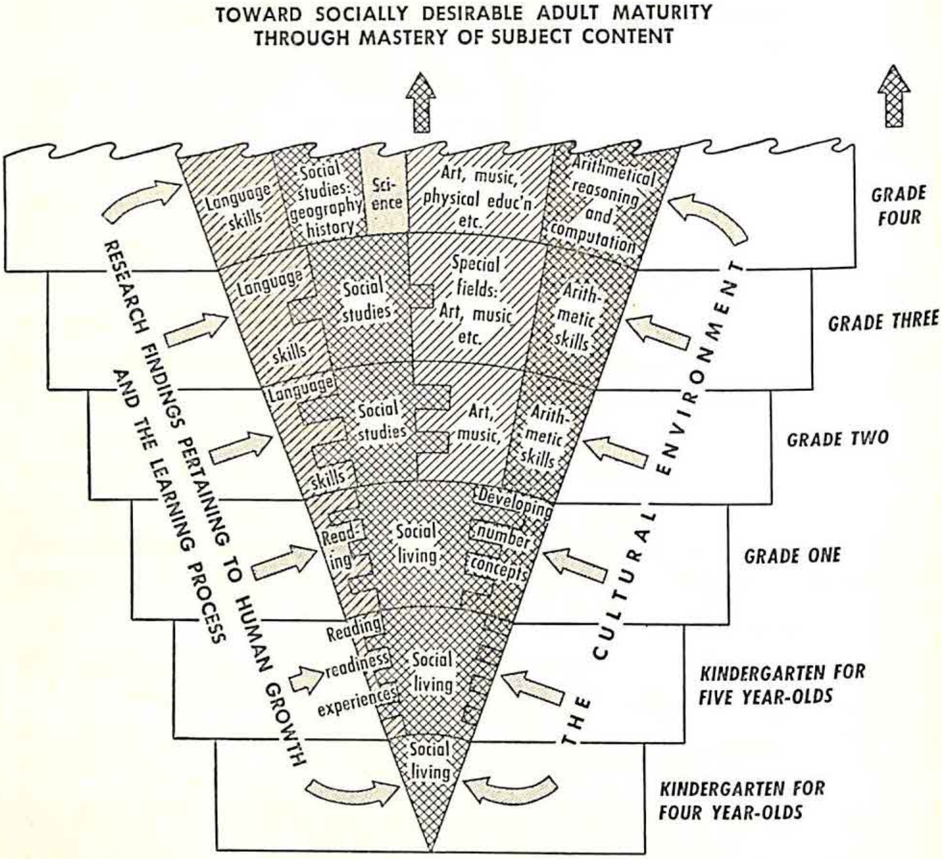
(6) Because of its compartmentalization, one separately taught subject area, such as geography, can be changed or modified without upsetting or even greatly affecting other fields in the subject curriculum.

(7) It ties in more conveniently with textbooks, films, and other teaching aids that usually are prepared to coincide with the subject areas.

(8) Also, the subject curriculum is familiar and understandable to the school patrons and serves to reassure the community that there is a logical, "no nonsense" design to local education.

A decision as to whether or not the sampling of eight arguments advanced in favor of the subject-centered curriculum has sufficient virture to justify its continuation, or even its extension into schools that have in recent years departed from it, cannot be reached at once. A look also must be taken at the experience-centered curriculum and a choice made between the relative advantages of each.

Figure 8:2. A Diagrammatic Interpretation of the Subject Curriculum*


TOWARD SOCIALLY DESIRABLE ADULT MATURITY
THROUGH MASTERY OF SUBJECT CONTENT
Language skills
Social studies: geography history
Science
Art, music, physical educ'n etc.
Arithmetical reasoning and computation
GRADE FOUR
Language skills
Social studies
Special fields: Art, music etc.
Arith-metic skills
GRADE THREE
Language skills
Social studies
Art, music,
Arith-metic skills
GRADE TWO
Reading
Social living
Developing number concepts
GRADE ONE
Reading readiness experiences
Social living
KINDERGARTEN FOR FIVE YEAR-OLDS
Social living
KINDERGARTEN FOR FOUR YEAR-OLDS
RESEARCH FINDINGS PERTAINING TO HUMAN GROWTH AND THE LEARNING PROCESS
THE CULTURAL ENVIRONMENT

Note the increasingly distinct identity of academic fields and how "social living" permeates other fields to a decreasing extent as children move upward through the grades. Research findings and the culture are depicted as factors bearing on the curriculum.

THE EXPERIENCE CURRICULUM. The experience curriculum, associated with liberal and experimental programs, emphasizes the importance of the learner. Developmental experiences that draw upon content lie at the heart of this less formal curriculum structure. This is portrayed in Figure 8:3. There, as the reader will observe, the expanding cone of the curriculum is given form through teacher-pupil planning within the framework of the teacher's psychological and philosophical insights into child growth and development, a framework that provides a basis for the selection and guidance of experience.

Content in the experience curriculum, as found in the more

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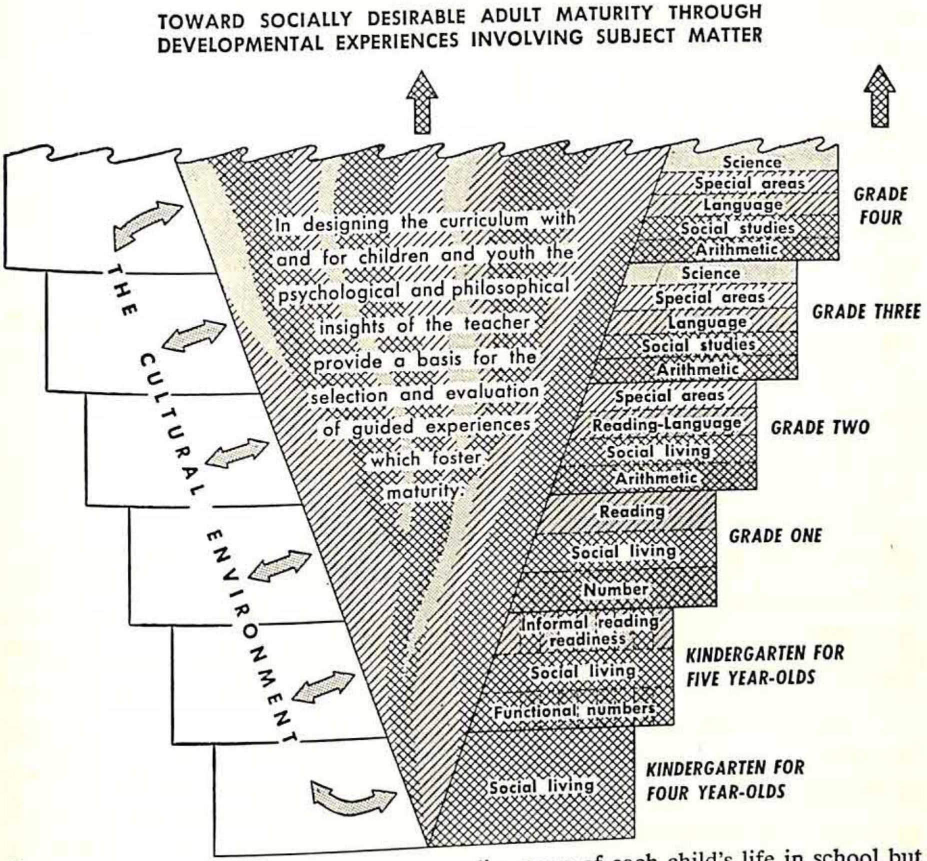
* From Harold G. Shane and W. A. Yauch, *Creative School Administration* (New York: Henry Holt & Co., 1954), p. 226.

Figure 8:3. A Diagrammatic Interpretation of the Experience Curriculum *


TOWARD SOCIALLY DESIRABLE ADULT MATURITY THROUGH DEVELOPMENTAL EXPERIENCES INVOLVING SUBJECT MATTER
In designing the curriculum with and for children and youth the psychological and philosophical insights of the teacher provide a basis for the selection and evaluation of guided experiences which foster maturity.
THE CULTURAL ENVIRONMENT
Science
Special areas
Language
Social studies
Arithmetic
GRADE FOUR
Science
Special areas
Language
Social studies
Arithmetic
GRADE THREE
Special areas
Reading-Language
Social living
Arithmetic
GRADE TWO
Reading
Social living
Number
GRADE ONE
Informal reading readiness
Social living
Functional numbers
KINDERGARTEN FOR FIVE YEAR-OLDS
Social living
KINDERGARTEN FOR FOUR YEAR-OLDS

Note that content is woven into the expanding cone of each child's life in school but that it is shared with children functionally. The structure of the curriculum is derived from the processes of teacher-pupil planning. The two-headed arrows imply the school's efforts to contribute to the environment as through socially useful work.

liberal school, is a resource. This is illustrated by the placement of organized content in a position peripheral to the central cone in the diagram. While content flows into the emerging, expanding stream of experience, the diagram is intended to suggest that this content is a *means* to the end of effective human development.

Further examination of the diagram will reveal that there are no symmetrical or sharp divisions among the streams of content blended within the cone nor are there divisions to represent the assignment of certain pieces of subject matter to a given grade level. At the same time, the content placed to the right side of the cone is clearly delineated so as to suggest that it is not presented in a haphazard manner but in a functional fashion—that is, the subject matter is used as needed to give meaning to experience.

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* From Harold G. Shane and W. A. Yauch, *Creative School Administration* (New York: Henry Holt & Co., 1954), p. 229.

The cultural environment, represented at the left of the cone, is accompanied by *double*-headed arrows as distinct from the *single*-headed arrows in the sketch of the subject curriculum on page 188. Double-headed arrows are used to suggest the closer concern for, and the closer relationship to, the cultural environment that characterizes the experience curriculum. Not only are curricular experiences here governed by the cultural milieu; there is also an active attempt to interpret and to modify the culture through a dynamic school program.

To sum up, subjects give structure and coherence to the subject curriculum, while substance and continuity in the experience curriculum stem from the application of educational value to the question: "How can I, the teacher, guide the total development of each child in such ways as will develop his skill and knowledge to the utmost?" Both interpretations of the "better" approach to curriculum development are intended to provide the soundest possible education, but there is a considerable chasm between the reactionary-conservative and the liberal-experimental positions.

AN EVALUATION OF THE EXPERIENCE CURRICULUM. Eight reasons why many school workers consider the structure of the subject curriculum a superior one have already been presented. Now let us examine eight roughly parallel virtues of the experience curriculum as voiced by its proponents. The *carefully developed* experience curriculum is one that has the following values:

(1) It enables the teacher to plan, with professional judgment, those portions of the cultural heritage that can most suitably be shared with children at a given time. Learning is tailored to fit the group, not set up in detail in advance.

(2) It insures that subject matter is meaningful because it is selected in cooperation with children and is something that they see a reason for studying.

(3) It removes the restraint of prescription from the shoulders of the creative teacher and encourages him to use professional judgment. The exercise of such judgment encourages teacher growth both in knowledge of content and of children.

(4) While it may not lend itself fully to measurement through objective tests, the experience curriculum is better suited to the estab-

lishment of situations and procedures through which changes in behavior can be gauged, for example, attitudes toward minorities, acceptance of others, and leadership in social situations.

(5) It removes, or at least, decreases, the feeling that a given teacher is limited to utilizing only a prescribed amount of subject matter allocated to his grade level.

(6) Because of its lack of compartmentalization and the freedom to plan and to innovate, it results in continuous curriculum change and improvement rather than in major periodic overhauls.

(7) While it does not tie in with conventional texts and teaching aids in an organized manner, it permits the use of many diverse educational tools including textbooks.

(8) It helps to assure the parent that his child will not be caught in the grip of an inflexible program or held at a specific time to achievement standards that temporarily are beyond his grasp.

Truly, an attractive list of assets—with reason—can be claimed by the proponents of both the subject and the experience curriculum. And now let us see if some means can be found to escape the dilemma of choosing one without losing some of the values of the other.

▪ Curriculum Planning at the Crossroads

Not for decades has so critical a decision faced the curriculum evaluator as the choice he faces at the present crossroads in curriculum planning. On the one hand, he may make the choice of limiting the school's work to doing the best possible job of teaching in the conventional manner and hope that transmitting a knowledge of the cultural heritage and the 3 R's will permit the school to acquit itself of its responsibility to society. On the other hand, he may follow a less trodden path toward new schools for new patterns of culture.

THE CASE FOR LIBERAL THINKING IN PLANNING THE STRUCTURE OF THE CURRICULUM. Several compelling reasons urge upon the teaching profession a liberal-experimental choice in planning the elementary curriculum. In the first place, and despite pressures to retain subject-centered curriculum designs and even to restore certain content-focused and discarded practices, teachers must recognize that the dynamic sweep of change touched upon in Chapter 1 does not permit the schools, without the most careful scrutiny, to retain present ideas and practices, let alone revert to those of 1900! The present is on its way to becoming the past, and one cannot move intelligently into the future by clinging to the status quo!

In the second place, there is a tremendous diversity among children in our schools—even among those is the wide range that encompasses our "normal" or "average" boys and girls. A conservative curriculum structure (let alone a reactionary structure!) by its inherent nature does not provide adequately for human differences. The conservative stress on content *per se* implies that certain minimum essentials must be acquired by all. Yet it is literally impossible to squeeze all our highly individual pupils into the same mold. We need to seek maximum possibilities for all, not minimum requirements.

Third, let us return to the point made at the outset of this chapter. *The curriculum is a means to the child's self-education.* Here is the ultimate test of what makes a good curriculum *good.* It must help him to help himself to learn. As he stands at the "curriculum crossroads," the evaluator who chooses to emphasize *only* subject matter throws away 50 years of research in teaching and learning. The curriculum that helps the child to help himself to learn is the liberal-experimental curriculum, which, by definition, seeks newer, better ways of accomplishing that end. Clearly, *we do not know all there is to know about learning,* hence we *must* follow the experimental path in order to keep on learning about what constitutes a sound education. There is no alternative for school workers if they seek to do a better job of educating children.

The writers, let it be clearly understood, are not advocating a renaissance of the more thoughtless kind of haphazard or sloppy planning that helped to give newer educational designs a bad name in the 1930's and 1940's. The liberal-experimental path is hard and steep if it be interpreted *not as a substitute for subject content* but as *a means of helping the individual child to learn more* through superior curriculum designs and structures. There is so much for children to learn today, and so precious little time for them to do a good job of self-education, that the superior curriculum simply cannot be a superficial one.

Will Rogers once said, "The schools ain't what they used to be—and they probably never was!" As the curriculum evaluator stands at the crossroads, as he looks to the fancied security of traditional practice, he will do well to recall Will Roger's remark and aim for the *true* security that comes from applying his intelligence to the unending but rewarding search for better ways of assisting children to bring about wholesome changes in their intellectual, social, and emotional inner worlds where the psychological curriculum has its being.

Summary

Chapter 8 attempted to make clear that an education is something that a child accomplishes for himself, albeit with the assistance of adults. It was pointed out that those who evaluate, design, and reappraise the curriculum have a variety of philosophical choices, and that the best choice seemed to be the one most consistent and compatible with fostering the child's efforts at self-education under professional guidance.

The five philosophical choices open to the evaluator were identified as reactionary, conservative, middle of the road, liberal, and experimental. These terms were defined and their implications for curriculum structures were explained. Next an examination was made of the alleged merits of both the subject-focused (reactionary/conservative) and the experience or learner-focused (liberal/experimental) approaches to the elementary curriculum.

In the concluding pages of the chapter, the writers indicated that when one evaluates and restructures the curriculum, a strong case can be made for a liberal philosophy that looks toward tomorrow and that takes into account the momentum of cultural change that is shaping our tomorrows.

Discussion Questions and Suggested Activities

1. With respect to both the primary and intermediate grades, discuss curriculum and administrative practices that you would classify as (1) reactionary, (2) conservative, (3) liberal, and (4) experimental with respect to: grading or marking, handwriting, grouping, reading programs, elementary science, etc.
2. There has been some discussion of the possible merits of a national or "standard" curriculum to be used throughout the United States. Discuss or debate the virtues and problems inherent in this proposal. Be sure to make clear your interpretations of a "basic nation-wide curriculum" at the outset.
3. If curriculum planning is, indeed, at the crossroads, what are some of the practices and trends that you would like to see brought nearer to reality during the next decade?

Selected and Annotated Readings

Continue your exploration of the readings listed at the close of Chapter 7.

9

Evaluating the Language Arts

WITH each passing year, skill in using and in understanding the language arts seems to become relatively more important. We live in an atmosphere that is saturated with printed and audible symbols that govern our ways of thinking and our conduct. The influence of verbal and written material on our lives was emphasized not long ago in an interesting and, in many ways, a disconcerting book by Packard, which bears the title *The Hidden Persuaders.*[1]

In *The Hidden Persuaders,* Packard deals at length with the symbol manipulators who are attempting, through mass language media, to shape our wants and desires for consumer goods and even to control our political beliefs. Research in sociology, psychology, psychoanalysis, and group dynamics, the author points out, is being examined and applied in order to serve the purposes of manufacturers and politicians. Clearly, there is a need to study and appraise with renewed vigor our approach to building in children and youth a better grasp of communication skills and propaganda techniques. The increasing power and influence of mass media make this evaluation imperative.

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[1] Vance Packard, *The Hidden Persuaders* (New York: David McKay Co., 1957). See especially Chapter 15 on the application of selling techniques to children of preschool and elementary age, "The Psycho-Seduction of Children."

In addition to its enhanced influence in the present electronic age, language is of great significance to us as man's oldest and most powerful invention. It has been the time-binding factor in social progress from one generation to another.[2] Expressed in another way, language in its several forms preserves the knowledge we have of the past. In addition to performing this function, it serves as the instrument by means of which individuals identify themselves with the ideas, values, and events in the human drama that we call history.

Language also plays an important role in human relations. As a vehicle for thought and communication, it helps both children and adults to develop clear ideas about their own country and the nations beyond our borders. The major differences and sources of problems among the peoples of the earth are psychological and cultural. The elimination of many impediments to better human understanding depends substantially upon the ability of people everywhere to use the tools of communication both with accuracy and with moral responsibility.

An evaluation of the language arts program requires that teachers examine their understanding of the cultural and psychological nature of language. They must begin to understand its power as an instrument that can hearten or discourage the listener, that can help him to become a more effective citizen or a liability to himself and to society—that is, teachers must learn that written or verbal symbols produce desirable as well as undesirable changes in the ideas and values that direct the daily living of children and adults. Important general objectives of elementary education, such as were presented in Chapter 2, also should be kept in mind while seeking language values with boys and girls.

■ What Are the Language Arts?

Taken in their entirety, the language arts are the most important single segment of the curriculum. No other phase of the program absorbs so much time and energy or is so broad a part of the foundation for living and learning activities that the classroom provides. Actually, each day spent in school (or elsewhere, for that matter) is a continuous experience in language development. Every school activity presents the need for using one or more language tools, and every teacher is responsible, to some degree, for the progress children make in the language arts. All teaching *in* English is the teaching *of* English.

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[2] Irving J. Lee, *Language Habits in Human Affairs* (New York: Harper & Bros., 1941), p. 5.

THE LANGUAGE ARTS AREAS. Although there are a few minor differences of opinion as to what the language arts include, we have chosen the following for discussion here: (1) reading, both silent and oral; (2) oral communication, including storytelling; (3) spelling; (4) handwriting; (5) grammar and usage; (6) creative expression, both in writing and through dramatics; (7) listening or auding; (8) literature; (9) teaching a second language; and (10) interpretation of mass media of communication.

Current effective school practice stresses the functional meaning and interdependence of reading, speaking, listening, and written expression. Greene has grouped the language processes into socio-psychological functions—*expressive language* and *receptive language*.[3] Expressive communication includes oral and written expression and is employed when children find it necessary to share ideas and information with other individuals. Receptive communication—listening and reading—is used when they wish to learn from the orally expressed or written thoughts of other persons. The directive purpose when using any one of these processes is to learn something. The language skills, when properly used, contribute to improvement of the content that is being learned or shared.

Teachers should so plan the language arts program that children discover motivating interests and experience adequacy in their study and use of the personal and social values of language. A balanced program gives children the opportunity to learn the practical value of each of the language processes. Common sense would indicate the need for definite periods being devoted to the study of the functional skills involved in both receptive and expressive communication. Such periods, in order to be functional, should be related to practical usage and to other curriculum areas. They also should stimulate children to examine their own psychological patterns and to seek guidance in improving them. These periods produce best results, it must be added, when method and activity are adapted to the special needs and capacities of each child.

A well-planned program should also include many situations in which children will recognize the functional value of the language arts in attaining desired goals in other curriculum subjects or activities. Such a correlated program helps children to comprehend the difference, and also the relationship, between (1) language as the vehicle of thought and action, and (2) those enabling skills necessary to meaningful, accurate communication. Furthermore, children need motivation and guidance in studying the important role that the language arts play in developing personality and in experiencing adequacy in living and learning with others. Children, through their experience, should strive for higher standards of attainment in the language arts because they are becoming aware of their personal and social values, rather than merely striving for high grades.

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[3] Harry A. Greene and William S. Gray, "The Measurement of Understanding in the Language Arts," *The Measurement of Understanding*, Forty-fifth Yearbook of the National Society for the Study of Education, Part I (Chicago: University of Chicago Press, 1946), Ch. IX. Quoted by permission of the Society.

SOME VITAL LANGUAGE ARTS CONCEPTS. Certain concepts regarding the nature of language, when properly understood, will enable children to use language with improved meaning and accuracy. Without functional comprehension of these basic concepts, language for many children is reduced to a burdensome task of trying to memorize abstract words and rules of punctuation and sentence structure.

Through their language experiences in school, children should acquire an understanding of the idea that no two persons can experience the same situation in the same way.[4] Likewise, no two persons can observe or describe in the same way the same event or situation. The experiencing of each situation is a unique psychological process. An act of experiencing cannot be transmitted from one person to another. Language, however, is the instrument that enables a person to select from his experiencing those elements that he desires to share vicariously with others. He then employs the language symbols required in transmitting his thought units to the behavioral environment of another. The other person is required in the process to translate these language patterns into thoughts that affect his behaving.

Communication is clear only when the receiver of communicated language creates thoughts similar in meaning to those held by the transmitter of language patterns. Basic, therefore, is the concept that language symbols can stand only for objects and events. The content of language has its meaning and function only in the psychological behavior that goes on in the "under-the-skin" life of each person.

The idea that language permits an individual to "talk matters over with himself" before deciding what thoughts to communicate or what action to take is another basic concept. It is this ability that William H. Kilpatrick describes as the "self–other" conversation.[5] It gives individuals the means to attain social accountability for their thoughts and actions. The classroom environment should provide activities and discussion sessions in which children find motivation and guidance to learn the value and skills involved in carrying on an internal conversation between one's self and another person. This is a complex process. It requires children to develop the ability to give careful attention to the situation in which they and another person are interacting, to project themselves psychologically into the role of the other person, and to "listen to themselves," so that they can appraise the possible reactions that their language may cause in the other person. The social significance of this psychological process has been discussed by George H. Mead in *Mind, Self, and Society*. One of the conclusions that Mead emphasizes is:

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[4] The points that follow are basic precepts in general semantics. See Irving J. Lee, *Language Habits in Human Affairs* (New York: Harper & Bros., 1941), Chs. III-IX.

> When, in any given social act or situation, one individual indicates by a gesture to another individual what this other individual is to do, the first individual is conscious of the meaning of his own gesture—or the meaning of his gesture appears in his own experience—insofar as he takes the attitude of the second individual toward that gesture, and tends to respond to it implicitly in the same way that the second individual responds to it explicitly.
>
> Gestures become significant symbols when they arouse in other individuals, the individuals to whom they are addressed, and in all conversation or gestures within the social process, whether external (between different individuals) or internal (between a given individual and himself), the individual's consciousness of the content and flow of meanings involved depends on him thus making the attitude of the other toward his own gesture. . . . Only in terms of gestures as significant symbols is the existence of mind or intelligence possible; for only in terms of gestures which are significant symbols can thinking—which is simply an internalized or implicit conversation of the individual with himself by means of such gestures—take place.[6]

Another basic concept of language, through which teachers are given the opportunity to assist children in learning, is its invaluable use as a psychological tool in extending their interests, appreciations, and knowledge. Periods devoted to a discussion of language[7] will cause many children to change their attitude toward language from that of a required subject to be studied in school to an interesting way to learn about things, people, events, and places in various parts of the world. It is essential also that children have access to varied materials that bring interest and satisfactions as they employ language as a tool to learn from vicarious experiences. Such meaningful experiences often will motivate children to engage in the cooperative study of the specific skills that are needed in using this language medium with improved accuracy and moral accountability.

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[5] William H. Kilpatrick, *Selfhood and Civilization* (New York: The Macmillan Co., 1941).

[6] George H. Mead, *Mind, Self, and Society* (Chicago: University of Chicago Press, 1937), p. 47. Used with the permission of the publisher.

The role that language plays in personality and citizenship is another aspect that teachers should strive to help children comprehend. Children who have learned to use language to increase their vocabulary, to extend the meanings of life around them, and to improve their skills in communication will reflect this development in their personality behavior. They will find it easier to interact with other persons, to share in cooperative endeavor, and to judge the social consequences of their thoughts and verbal action. Language, therefore, plays an important role in the interpretations that children learn about the meaning of democracy and the requirements that it imposes upon every citizen. The language arts program of the school, if properly evaluated, must be appraised with regard to the degree that children recognize and accept its functional value. By this is meant the functional value of each phase of language in improving the ability of boys and girls to discover new ideas, to act after thinking, to appraise the social consequences of their thoughts, and to find adequacy in living and working as members of the school, home, or community society.

■ Guidance in "Reading to Learn"

The ability to read critically is a fundamental requirement for intelligent citizenship in a complex modern society. Critical reading is one of the most effective means that individuals can rely on to keep themselves informed regarding crucial issues or conditions and trends in national and international affairs. Each year brings an increase in the kinds and number of books, pamphlets, magazines, and newspapers that are published. Individuals who possess only the mechanical skills in reading may be unaware of the changes that emerge in their thinking and acting because they have been unable to appraise properly the materials read. In fact, it may be dangerous to know how to read unless we also possess the proficiency to do critical thinking, to make valuable judgments, and to distinguish between factual and false-to-fact ideas and information.

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[7] That is, language conceived as the psychological process that makes it possible for individuals to obtain new meanings, new ideas, and additional information.

CURRENT PROGRESS IN TEACHING READING. Contrary to the statements of some school critics, most children are learning to read more rapidly and more accurately today than ever before. This is due to the improvements that have been made in the purposes, methods, and materials of the reading program in elementary schools. Gains in reading achievement have as their foundation the research studies and experiments that have been carried on: (1) to discover the nature of the reading process, (2) to determine the principles of psychology that underlie effective reading, (3) to locate the various kinds of reading difficulties and their contributing causes, (4) to find the interests and needs that motivate better reading, and (5) to evaluate the influence of reading progress on personality development. The results of these studies show that child growth in reading can best be secured when the objectives and materials of the classroom are adapted to the developmental needs, interests, and abilities of the children.

The child-development approach in designing the elementary school program in reading was the theme of the committee that prepared the report on *Reading in the Elementary School* for the National Society for the Study of Education. "A most significant principle underlying this yearbook is that child development, in its broadest sense, is influenced by the individual's reading interests, abilities and habits." The Committee further states: "The teaching of reading is frankly recognized by the committee as conspicuously a problem in child development. Reading taught merely as an organization of intellectual skills without full regard for the child's developmental problems in general falls short of an ideal program.[8]

CONCEPTS AND PRINCIPLES RELATED TO READING. A well-planned reading program in an elementary school is based on the faculty's recognition of the following concepts:

(1) Reading is a complex process of translating printed or written

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[8] *Reading in the Elementary Schools*, Forty-eighth Yearbook of the National Society for the Study of Education, Part II (Chicago: University of Chicago Press, 1949), pp. 4-5. Quoted by permission of the Society.

language symbols into meaningful psychological ideas or thought units.

(2) Reading requires that the child engage in the complex process that makes ideational learning possible.

(3) Reading is a more meaningful process of "thought getting" when the purpose and materials are identified with the interests and needs of the reader.

(4) Each child determines the rate and mental processes employed in each reading situation.

(5) Each child should experience continuous improvement in organizing and in using his reading abilities and skills in all class activities that involve reading to learn.

(6) Reading is the process of translating, interpreting, and evaluating new ideas and information. It therefore is an indispensable process in most school and out-of-school situations.

(7) Teachers should give instructional leadership and assistance to children in selecting reading activities and materials. However, since reading is a psychological process, each child literally teaches himself to read.

Any attempt to evaluate the reading program should focus attention on the degree to which certain principles of child development have been taken into account when the faculty designed the objectives, activities, materials, and methods of the program. Russell gives the following principles of child development that have definite implications for the reading program:

(1) All children go through similar stages of development as their reading abilities mature.

(2) Development of reading abilities is a continuous and gradual process.

(3) Although children go through similar patterns of continuous development, there is wide variation in the times individuals reach certain points in reading achievement.

(4) Although reading is a continuous development, at various levels different needs and interests tend to accelerate certain phases of growth in reading abilities and attitudes.

(5) In general, there is a positive relationship between reading achievement and general physical, mental, and social development and among the various reading achievements themselves.

(6) The effect of environmental influences related to reading varies with the stage of maturation reached by the child.[9]

DEVELOPMENTAL STAGES IN READING. Meaningful and efficient progress in reading involves a gradual development in social maturing. Research shows that children pass through certain developmental stages as they expand their psychological processes in reading to learn. Witty has designated these developmental stages as:

(1) The period in which the child succeeds in his first oral and silent reading experiences.
(2) The period of rapid progress in the development of habits, skills, and attitudes related to efficient silent reading.
(3) The period in which experience is greatly extended and habits and tastes are refined through reading.[10]

Children, owing to the uniqueness of their developmental patterns and to the differences in their out-of-school experiences, will differ in their rate of progress from one reading stage to the next. Teachers, therefore, need to adapt the objectives in reading that have been formulated for the school to the individual interests and capacities of each child. It is normal for children to differ; it is abnormal to expect them to be alike in their attainments. A good classroom environment should offer a variety of reading materials appropriate to the range in the reading interests and abilities of the children.

FUNDAMENTALS IN "READING TO LEARN." Teachers will be more sensitive about the factors that contribute to normal progress in reading when they examine frequently their understanding of the complex nature of the reading process. There are requisites for achievement in reading. Children cannot think unless they possess a supply of accurate and significant meanings. This can be obtained only from thought-provoking experiences. Many children have difficulty in reading for the reason that they do not possess the meanings needed in translating the printed symbols. The school program should be so planned that children interact with various kinds of direct experiences, such as field trips, plays, concrete objects, films, and recordings, so that they may discover and properly interpret the meanings that they can draw upon when they read books and reference material that tell about similar situations. The extension of new meanings as an aid in thoughtful reading should be emphasized in all grades of the school. Poverty of meanings and ideas can cause a child to experience serious barriers to satisfying progress in reading. Obtaining ideas and information through many and varied direct experiences is, therefore, a fundamental in meaningful reading.

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[9] David H. Russell, "Reading and Child Development," *Reading in the Elementary School,* Forty-eighth Yearbook, The National Society for the Study of Education, Part II (Chicago: University of Chicago Press, 1949), pp. 16-18.

[10] Paul Witty, *Reading in Modern Education* (Boston: D. C. Heath & Co., 1949), p. 142. See also *The Teaching of Reading: A Second Report,* Thirty-sixth Yearbook of the National Society for the Study of Education, Part I (Bloomington, Ill.: Public School Publishing Co., 1937).

A vocabulary of meaningful words also contributes to pleasure in reading. Interest in learning the meanings of new words can be aroused by devoting time to the discussion and demonstration of the meaning of new words that children have discovered and that they find to be useful in reading. Teachers may improve vocabulary-development activities in the classroom by applying the standards prepared by Althea Beery:

(1) Vocabulary development is viewed as a necessary part of the total program in reading, language, and thinking but not as an end.
(2) The program fosters a sense of responsibility on the part of the child for checking the meanings of words and for learning to recognize new words independently.
(3) Each child is developing versatility and flexibility in his attack on new words.
(4) The child is taught a beginning sight vocabulary in such a way that he has a thoughtful attitude toward the content of reading material.
(5) The vocabulary program is adjusted to individual needs in terms of vocabulary load, time of initiating techniques of word analysis and the use of glossary and dictionary.
(6) There is a periodic check on word mastery.
(7) The child is given definite assistance in interpreting precise meanings as they are influenced by the different contexts in which words are imbedded.
(8) The school provides challenging experiences which develop vocabulary and stimulate the desire to read.[11]

READING SKILLS. Satisfactory progress in reading as a "thought getting" process obviously requires the learning of specific skills or psychological patterns. These functional skills or habits can be developed only by the reader as he engages in the process of translating verbal symbols into thought units. Teachers should agree on the skills that they desire children to learn for each reading stage, so that children may experience sequence in developing these psychological patterns of behavior when reading. Continued improvement in using these skills will result when children are motivated to discuss their nature and function before they begin to read. A discussion of the value of certain skills by the children after reading is a profitable experience in appraising the application of these skills.

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[11] *Reading in the Elementary Schools,* Forty-eighth Yearbook of the National Society for the Study of Education, Part II (Chicago: University of Chicago Press, 1949), p. 192. Quoted by permission of the Society.

Space does not permit listing the essential skills involved in meaningful reading. William S. Gray has prepared a statement of desirable objectives in reading and listening[12] and also has identified the skills needed in achieving each objective. This excellent statement of objectives, procedures, and appraisal techniques is mentioned here as a source that should prove helpful to teachers engaged in the evaluation of pupil progress in receptive communication.

FACTUAL AND RECREATIONAL READING. The ideas and information gained through reading depend upon both the skills used in reading and the nature of the materials read. The classroom program should provide a balance between factual or work-type reading and materials that are read primarily for pleasure. Children, when reading factual material, should be held to a high standard of accuracy in interpreting the facts that have been recorded. They should be expected to show ability in distinguishing between correct and false-to-fact statements. In addition, they should display, to an increasing extent, readiness to inquire into the date of publication, the source of the data recorded, and the competence of the author. This ability is of major importance in reading textbooks, library references, newspapers, magazines, and pamphlets.

Recreational materials permit more liberty in interpreting and appraising the validity of the recorded ideas or experiences. Children enjoy reading fanciful materials. Teachers must recognize, however, that during the elementary school years children are developing reading habits that, once established, cannot easily be revised or corrected. It is imperative, therefore, that children be given guidance and materials that enable them to develop the psychological skills essential in translating accurately the ideas and information found in factual materials.

READING AND SOCIAL EDUCATION. Reading skills alone do not produce desired changes in thought and action. These changes result from the kinds of materials read. Children should be encouraged to read materials that relate to the realities of the society in which they live. The application of reading in interpreting such materials helps children to extend their understanding of such life problems as transportation, communication, consumer economics, safety, public health, municipal government, intergroup relations, and others of equal importance in protecting the welfare of individuals and the general public. Children frequently should be encouraged to raise questions as to whether or not given reading material is of sufficient importance to justify the time spent in reading it. The reading program should be so planned that the materials read contribute to a more accurate understanding of the contemporary society. *Elementary education should provide an environment of materials and activities that make a difference in the social thinking and actions of young citizens.*

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[12] Greene and Gray, *op. cit.*, pp. 190-200.

Administrators and teachers when evaluating the reading program and the reading progress of children may find it expedient to include in their inquiry such questions as:

(1) Does the school provide enough activities that enable the children to acquire a background of meanings for reading?
(2) Are children given the opportunity to develop readiness for each reading situation?
(3) Are the children having experiences that help them in developing a meaningful vocabulary for reading?
(4) Are the pupils showing evidence of appraising with increasing care the materials they select to read?
(5) Are the pupils developing the ability to read critically materials encountered in life situations, such as newspapers, magazines, pamphlets, circulars, and so forth?
(6) Is there a proper balance between factual material of social significance and recreatory reading material?
(7) Are the children being motivated to give more attention to the quality of their interpretative reading than to the quantities of material read?
(8) How adequately do the reading materials help children to cope with the out-of-school realities in modern society?
(9) Are the children using reading as a psychological process to broaden their interests, values, and understandings toward the human events in the world about them?
(10) Are the children showing evidence of progress in critical reading by giving concern for their answers to such questions as:

a. Why am I reading this?
b. Who wrote this book, and why did he write it?
c. Do I understand what the author is trying to say?
d. Do I think about what I have read before accepting it?
e. Should I check the accuracy of what I have read by reading other references? *Do* I read other sources?
f. Am I aware of the parts that the author left out when he wrote this book?
g. Am I accurate when talking with other persons about what I have read?

Teachers should evaluate periodically: (1) their understanding of the nature and function of the reading process, (2) the reading objectives that they expect children to attain, (3) the social significance of the reading materials, (4) the attention given to reading during other learning activities, (5) the probable effect of the instructional methods on the psychological behavior of the children, (6) the procedures and instruments used in diagnosing the abilities and difficulties in reading, and (7) the children's interests and tastes in reading. The findings regarding such items as these will serve in changing the instructional methods, the materials, and the techniques previously used in appraising the progress of children.

Since reading is a psychological process, any evaluation program is incomplete unless it motivates children to make frequent appraisal of their skills, their difficulties, interests and tastes, and their understanding of reading as a means of helping them develop the characteristics of an informed and critical mind.

▪ The Measurement of Reading Skills

Adequate evaluation includes measurement as one means of gauging progress. In the field of reading, it is desirable for the teacher to keep himself informed with respect to the basic measurement tools that deal with reading readiness, intelligence, achievement, and the diagnosis of reading difficulties.

READINESS FOR READING. In order to determine readiness for reading, the classroom teacher should pay heed to the oral language development of a child through observation of his word usage in sentences, his apparent understanding of conversation and directions, and the structure of his sentences. Since a mental age of 6.2 is deemed desirable for beginning reading with reasonable assurance of success, intelligence-test data are also desirable. An M.A. of 6.0 may be considered minimal when the child's organized reading experiences are begun.

In addition to mental age and oral language maturity, the teacher should concern himself with the health of children in general and with vision and hearing in particular. Normal health, as determined by teacher observation and medical examination, is a requisite for readiness, and eye examinations preferably should include binocular-type check-ups as well as tests for far- and nearsightedness (hyperopia and myopia). Any hints of visual impairment should be checked by an oculist. Hearing should be tested with the audiometer, but a watch-tick test is a good means of locating the hard-of-hearing child.

Readiness of all kinds, including readiness for reading, is influenced by many factors, as already noted. Two additional items are both subtle and important. One is the child's previous experience, which can often be estimated through parent conferences, home visits, and commercial readiness tests. The other is socio-emotional maturity. The kindergarten and first-grade teacher and parents often can pool their judgments in estimating this developmental information.

INTELLIGENCE AND ACHIEVEMENT IN READING. It is desirable to consider intelligence and achievement together, not only in reading but in all subject-matter fields, since the two are so completely interrelated. For effective appraisal of individual outcomes in reading, the teacher needs to have I.Q. and M.A. data in order to lend meaning to achievement-test results. In other words, the performance of a child in reading is not fully meaningful unless the teacher knows whether the child is a potentially fast or slow achiever. The score a child makes in reading speed or comprehension must be interpreted as it applies to *him* rather than to group medians or averages.

TYPES OF STANDARDIZED TESTS FOR USE IN THE READING PROGRAM. No single field in elementary education is so fully endowed with tests as is the field of reading. There are a number of common instruments with which the evaluator should be acquainted. While the details of the standardized testing program are beyond the scope of this book, all school people concerned with evaluations should be familiar with the nature of such standard tools as those of which examples are given:

Reading-readiness tests. At the first-grade level, the *Gates Reading Readiness Test* (50 minutes, one form) involves word matching, rhyming, and picture directions (Bureau of Publications, Teachers College, Columbia University); while the *Murphy-Durrell Diagnostic Reading Readiness Test* (72 minutes, one form) treats rate of learning and auditory and visual perceptions (World Book Co.). At the kindergarten and first-grade level, the *Metropolitan Readiness Tests* (60 minutes, two forms) by Gertrude Hildreth provide broad information on ability with respect to sentences, vocabulary, visual perception, numbers, copying, recognizing similarities, and general information (World Book Co.). Also at the kindergarten–first grade level, the Lee-Clark *Reading Readiness Test* (20 minutes, one form) covers word forms and discrimination between letter forms (California Test Bureau). Addresses of test publishers issuing catalogs are given in Appendix D.

Survey-type tests. One of the well-known tests measuring vocabulary, reading speed, and level and accuracy of comprehension is the *Gates Reading Survey Test* (grades 3-10), distributed by the Bureau of Publications, Teachers College, Columbia University.

General reading achievement. Many tests deal with oral and silent reading skills. *The Gilmore Oral Reading Test* (grades 1-8, World Book Co.) and *Gray's Oral Reading Paragraphs* (grades 1-6, Public School Publishing Co.) are representative of tests concerned with oral reading rate, comprehension, or accuracy. The *Iowa Every-Pupil Tests of Basic Skills in Silent Reading Comprehension* (grades 3-5 and 5-9, Houghton Mifflin Co.) and the *Gates Basic Reading Tests* (numerous types, forms, and grade levels, Bureau of Publications, Teachers College, Columbia University) are examples of popular silent-reading instruments. Other well-known general reading-achievement tests include the *Durrell Reading Achievement Test* (primary and intermediate forms, World Book Co.), which covers word and paragraph meaning, and the *American School Achievement Test* (of vocabulary and comprehension, Public School Publishing Co.).

Semidiagnostic and diagnostic tests. Because so many teachers are concerned with the nature of the difficulties children encounter in reading, a number of tools have been created to help in the diagnosis of reading problems. The *Gates Silent Reading Tests* and the *Iowa Silent Tests* (new edition) are good examples of semidiagnostic tools. Gates, among other things, measures sentence and paragraph reading, word recognition, prediction of outcomes, and ability to follow directions—each of which may suggest the nature of a given child's difficulties.

A more explicitly diagnostic type of test is the *Durrell Analysis of Reading Difficulty,* which centers around word recognition, oral and silent reading, word analysis, spelling, and so on. It is individually administered to pupils who read below the seventh-grade level. The revised *Gates Reading Diagnosis Test* is also widely recognized. It provides individual diagnostic tests for spelling, phrase perception, word recognition and analysis, and oral reading. Pupil-record booklets also are available.

Reading-capacity tests. Group capacity tests are highly important in the reading program to suggest the reading *expectancy* of pupils, just as achievement tests are needed to show their reading *status.* An example of this type of instrument is the *Durrell Reading Capacity Test,* which, through primary and intermediate forms, examines word and paragraph comprehension (World Book Co.).

▪ Oral Communication

Effective oral expression is of paramount importance if the individual is to experience a feeling of adequacy in social and business situations throughout his life. Improvement in effective speech is accelerated when the learning activities in school are closely identified with the life needs of children. The speech activities of the classroom should be selected, therefore, after the children have made a survey locating school and community situations that call for competence in oral expression. Presumably, such speech activities frequently will be related to other areas of the curriculum, such as the social studies.

The children will be more ready to accept the teacher's guidance and to use resource aids that help them develop the skills that are essential when these skills are employed in such life activities as answering questions, making announcements, telling stories, and participating in group discussions or in meetings. The program of activities and objectives in oral communication when related to life needs will motivate the children's desire to improve their use of this language medium, because they will then understand its personal and social value. The learning is raised, therefore, to a higher intellectual plane.

EVALUATING THE MEANING OF ORAL EXPRESSION. While children appear to have little difficulty in talking, there can be an important difference between merely talking and *meaningful* oral communication. Purposeful speech for many children is not an easy accomplishment. Oral expression is a psychological process that is influenced by both personal and social factors in the experiential backgrounds of boys and girls and in the environment with which they are interacting. In appraising the quality of the classroom activities and the progress that children are making in improving their understanding and use of oral communication, special consideration should be given by the teacher and the children to the following:

(1) The classroom activities should be selected for the purpose of helping children discover the personal and social values of oral communication.
(2) The selection of elements from a situation that are to be transmitted to another person is a skill that deserves careful study.
(3) Children need guidance and experience in selecting the verbal symbols—words—that represent more accurately the thoughts that they wish to communicate.
(4) Pronunciation and enunciation condition the success of children in transforming mental thought units into sound or air-wave patterns.
(5) Listening to one's oral expression as he communicates in a reply to a speaker's question or statement is the most effective way that the speaker has to determine what the listener may have heard or may have thought.
(6) The practice of social amenities[13] influences the purpose and content of oral communication for both the speaker and the listener. It reflects maturity of personality in oral expression.

EFFECTIVE SPEECH AND "MENTAL CLIMATE" IN THE CLASSROOM. Normal development in speech depends on the social and intellectual environment provided for a class group. Some children do not develop purposes and skills in oral expression as readily as other children. Often this is not because they lack the potential ability but because they are emotionally insecure in the group. Some children experience slow development in oral communication because of their social immaturity. The personality of the teacher is often a barrier to speech development in others. They may have developed reactions to the teacher's communication that cause them to feel insecure or afraid when expressing their thoughts. Improvement in the oral-expression curriculum may be secured when teachers appraise the intellectual, social, and mental hygiene factors in the classroom to determine their effect on the psychological behavior of the children.

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[13] See on this matter Dora Smith, "Growth in Language Power as Related to Child Development," *Teaching Language in Elementary School*, Forty-third Yearbook of the National Society for the Study of Education, Part II (Chicago: University of Chicago Press, 1944), Ch. IV, p. 75.

▪ Appraising Listening Skills

WHAT LISTENING INVOLVES. Critical listening is a medium of receptive communication that should be developed in the school if children are to interact more intelligently with the mass media of communication, such as radio, television, movies, and the telephone. Listening is a psychological process of creating thoughts by translating the verbal symbols expressed by another person. Poor listening skills may cause many children to experience difficulty in interpreting the oral expression of the teacher. However, boys and girls appear to have little trouble in interpreting through listening the oral expression of their classmates. One reason for this is the relative similarity in the needs and living experiences of children. The psychological distance that exists between teachers and children is often a barrier to attentive listening on the part of the children. Also, the source of word meanings possessed by many children may be inadequate to enable them to attain an accurate mental response to the verbal language of their teacher.

Fortunately, there has been a greatly increased interest in listening in recent years. For example, a section in *The Review of Educational Research* for April, 1955, was devoted to the topic. There is currently a tendency to deepen the meaning of listening, frequently referred to as *auding,* which may be defined not only as the process of hearing but as listening to, recognizing, and interpreting or comprehending spoken language.[14]

Available research findings with respect to listening or auding seem significant when one seeks to evaluate and improve the curriculum. For one thing, children are expected to listen so much of the time—a median of 57.5 percent of the school day, according to Wilt[15]—that more heed should be given to their auding! We also know that listening ability varies greatly among individuals, that different kinds of listening skills can be identified, and that vocabulary, language aptitudes, and general intelligence govern one's power to listen.

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[14] See John G. Caffrey, "Auding," *The Review of Educational Research,* 25:121 (April, 1955).

[15] Miriam E. Wilt, "What Is the Listening Ratio in Your Classroom?" *Elementary English,* 26:259-264 (May, 1949).

The need for better auding—that is, better recognition and interpretation of what is heard—is reflected in the following dialogue transcribed in a suburban school in which the children came from economically favored homes. It illustrates the confusions inherent in verbal abstractions even in the best of circumstances. The teacher read the familiar Pledge of Allegiance to a group of seven-year-olds, then asked what each phrase meant. Their answers follow:

"I pledge allegiance to the flag of the United States of America . . ."
LINDA: It shows respect for the flag.
ROBBIE: That's when you put your hand over your heart.
BRUCE: Allegiance is an organization that gets together.
PAM: (When asked to circle the United States on the map, this girl pointed to South America and asked if she should include that, too.)

"And to the Republic for which it stands . . ."
BOBBIE: Like a public school—it belongs to the country.
BECKY: It's the states—all the states.
HUGH: You're supposed to be republic to the flag.

"One nation under God indivisible . . ."
LINDA: One person in this world is invisible. It could be God who you can't see.

"With liberty . . ."
PAUL: No fighting or anything—be free.
BOBBIE: Be free to do anything you like—in some countries you can't do what you want, like vote.
JEFF: Free enough to be good and not too bad.
VICKY: I know another kind of liberty: The Statue of Liberty.

"And justice for all."
BOBBIE: Certain rules—you can't go out and wreck everything like in a nice hotel or kill people and all that stuff.
MARION: Be careful when the patrol boy tells you not to do something like run out in the street.
BRUCE: When we all have peace. You shouldn't go up and fight someone.
VICKY: That's when you just can't bear to hurt your country.
JEFF: You shouldn't bomb buildings unless someone starts it.[16]

IMPROVING LISTENING. The ability to listen critically may be enhanced when, in group discussion sessions, children appraise their understanding of questions such as the following:

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[16] Transcribed by Ann Gregory, Northwestern University student.

(1) Why is critical listening an important process?
(2) What is the difference between talking and listening?
(3) What do persons really hear when listening to the radio or telephone?
(4) How may inaccurate listening influence the behavior of children?
(5) What happens when the sound waves strike the auditory system of an individual?
(6) Why can children hear words—sound-wave patterns—and yet not be able to understand their meaning?
(7) How may poor listening habits cause children to be misinterpreted by their teacher? Their parents? Their peers?
(8) What skills are needed to be a critical listener?

The answers that children give in discussing these and similar questions may motivate them to appraise their own listening skills. They may also learn from the discussions that information and insight which aid in extending their interpretation of the nature and function of listening in personal and social communication. They often can be helped to recognize the value of effective listening in improving their abilities in reading, oral expression, and other curriculum experiences. The questions should, of course, be phrased in childlike language, not in the adult terms used above.

■ Creative Written Communication and Self-expression

In many schools children are required to write "creatively" before they have experiences that lead to a sufficient psychological maturity for this form of expression. Writing often is a difficult language arts area for children, and it must be borne in mind that creative thinking must precede creative writing. The objectives and activities that the faculty have recommended for written communication must be properly adapted to the personal needs and maturation level of each child. When required to write before they are psychologically prepared to do so, children may experience some measure of success in writing. However, just as likely they will be motivated to develop negative attitudes toward writing, to make many errors when writing, and to interpret written communication as an assigned subject rather than as a creative or a useful tool in dealing with the life situations that possess meaning and social value for them.

Research in child development shows that children do not mature at the same rate. Basic principles of learning are violated, therefore, when all children in a given grade of the elementary school are expected to attain the same standards of progress in written communication at the same time. Children will be motivated to experience meaningful learning in written expression in the degree that each classroom provides:

(1) Meaningful activities that enable children to develop the psychological maturity required for success in writing.
(2) Guidance and experiences that give rise to meaningful and socially useful purposes for writing.
(3) Guidance in selecting and organizing the thoughts to be included in written communication.
(4) Guidance and activities in learning a meaningful vocabulary of writing words.
(5) Time, assistance, and encouragement when children are engaged in composing and in recording the thoughts they desire to communicate to other persons.
(6) Standards of performance that are adapted to the individual abilities of children.
(7) A unified approach to self-expression in which writing, speaking, and dramatics are included in the total fabric of creative activity.

Every effort should be made by teachers to help pupils experience proper motivation and satisfying results in each written-communication activity. Severe standards of measurement often operate as barriers to improvement in the psychological process that is involved in written expression if applied prematurely.

CREATIVE WRITING IN THE TOTAL SCHOOL PROGRAM. A number of able writers have clarified the role of creative written expression in the elementary school. Burrows[17] pointed out that writing brings the child into better relationships with others, and Cole[18] contended that such creative work had definite therapeutic value when she studied 35 children, all with behavior problems, with whom she worked.

Applegate[19] has suggested five reasons that creative writing should have an important place in the school program: (1) as a necessary social tool, (2) to help teachers understand children, (3) as a safety valve for children, (4) to give shy children something to be proud of, and (5) to give teachers a chance to discover and encourage talent. Evidently there is little question as to the merit of creative writing, but there is so little research, so little definitive information on how to stimulate creative power, that evaluation assumes great importance. A few specific ideas to consider in appraisal now follow.

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[17] Alvina Burrows, "Children's Writing and Children's Growth," *Elementary English*, 29:135:38, 149 (March, 1952).

[18] Natalie Cole, "Creative Writing for Therapy," *Elementary English*, 20:1-6, (January, 1943).

[19] Mauree Applegate, "As Useful as a Toothbrush," *A Monograph for Elementary Teachers*, No. 75 (Evanston, Ill.: Row, Peterson & Co., March, 1955).

EVALUATING WRITTEN COMMUNICATION. When evaluating the requirements, the activities, and the progress of children in written communication, teachers may find it desirable to raise such questions as the following for individual and class discussion:

(1) Do the objectives of the school stress writing too early?
(2) Are the writing situations related to the practical life needs of the children?
(3) Is there a preliminary interval for developing readiness that will motivate children's purpose, provide content, and encourage functional skills for each writing situation?
(4) Is the mental hygiene of the classroom conducive to the development of cooperative interaction among the children when they are engaged in written communication?
(5) Are the requirements in written communication consistently applied in other curriculum areas?
(6) Are specimens of good written expression made available for study by the children?
(7) Are persons from various positions in the community invited to the classroom to help lend meaning to subsequent written expressions?

Administrators and teachers will find that a list of objectives and evaluative procedures for written expression prepared by Harry A. Greene[20] contains many practical suggestions and techniques that may be used in evaluating the program and also the needs and progress of the children in written expression.

Creative expression is the most delicate and fragile of all the media of communication. Continued success in the use of this medium requires continued development toward maturity based on rich and varied experiences, a growing vocabulary, originality in thinking, and a desire to write for the pleasure and satisfaction experienced during the process.

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[20] Greene and Gray, *op. cit.*, pp. 177-189.

Creative expression as used here refers generally to the writing of poems, stories, anecdotes, plays, certain kinds of compositions, and creative dramatics. Guidance in this phase of language is, of necessity, individualized. Not all children should be expected to express creativeness in the same way or at the same time. Children, as they develop interests and capacities for this form of language expression, should find in the school the guidance, the resources, and the time to improve such abilities when they are ready to write.

CHILDREN'S LITERATURE AND CREATIVE DRAMATICS. It is, perhaps, unusual to group creative dramatics and children's literature in a general discussion of creative self-expression. Yet the enjoyment of literature is, or at least should be, more than a passive process. The literature program developed by the creative teacher fosters personality development and actively increases cultural understandings and insights as the child interacts with the printed page. Also, the good children's literature program in elementary schools is a foundation for work in creative dramatics to which it can lend both substance and meaning.

When evaluating and improving work in children's literature, the teacher does well to bear in mind research that has been done in the realm of children's reading interests. Studies suggest that literary "instincts" vary appreciably with the background, intelligence, and age or grade level of boys and girls.

In grades 1-3, "surprise" twists in plots appeal to all children, while boys especially enjoy animal tales and girls like children as the heroes in stories. Science, humor, and poetry are less popular until the upper intermediate grades. As a rule, when selecting stories to read to children, choose tales that the boys will like. Girls will listen to stories designed for boys, but boys often won't listen to books written primarily for girls!

The choice of stories for use in creative dramatics should be governed by the same principles that apply to the selection of literature to share with children. Effective work in dramatics, in addition to being good fun, should clarify the familiar and immediate, explore and interpret the unfamiliar, and assist children to face the demands of life as they portray imaginary roles.

DEVELOPING "WRITING WORDS." One source of frustration that denies many children pleasure and success in writing is spelling. In many schools, the barrier this creates is particularly high because of the separation of spelling from its functional use in written expression. Children should not be forced to learn to spell writing words until there has been a previous development of a sensed need for written communication. Children may be motivated to improve their writing vocabulary if the classroom environment is designed:

(1) To interpret spelling as the process of developing a writing vocabulary.
(2) To employ a list of writing words that has been adapted to the written communication activities and needs of children.
(3) To assist children in learning the meanings of words before they study their written characteristics.
(4) To provide for some children experiences in studying phonics when meaning has previously been established.
(5) To evaluate correct spelling in all written communication rather than in an isolated spelling lesson.

The school is obligated to provide guidance and activities that give children the opportunity to develop a vocabulary of writing words that insures adequacy in written expression as related to children's social needs. Spelling is not easy; many factors are involved in the process of gaining mental control of words needed in writing. Children will, therefore, vary in their ability and in their progress toward learning to use writing words correctly. A preparatory period devoted to the study of words that children need because they want to use them in their written expression usually produces desirable changes in the children's attitude toward spelling and in their ability to spell. Paul McKee, after making an analysis of the numerous investigations that have been carried on to determine what classroom procedures are most helpful to children in improving the ability to spell, has selected what he considers to be the most important of these procedures. The reader is referred to his compilation.[21]

▪ Language Arts and Human Relations

The language arts program must be appraised, finally, in terms of its value and effectiveness in helping children to respect the worth and dignity of human beings. Children should acquire the understanding that a word is only a thought-provoking sign or symbol. It cannot be a person, a feeling, an attitude, or a thing. Ideas, information, and feelings are psychological in nature and function only in the emotional-mental behavior of each person. Language should be so learned that children recognize the necessity for indexing the meanings that they may attach to people, institutions, and events. The word *American*, for example, must be properly understood. It refers to all the people who are citizens of the United States of America. However, the word must be interpreted to stand for American $_{1}$, $_{2}$, $_{3}$, and so on through the millions of citizens it might be meant to represent.

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[21] *Teaching Language in the Elementary School,* Forty-third Yearbook of the National Society for the Study of Education, Part II (Chicago: University of Chicago Press, 1944), pp. 158-160.

Accuracy in the use of language in the area of human relations is as fundamental as accuracy in applying the mechanics of spelling, sentence structure, and punctuation. An individual may possess the ability to spell correctly, to read critically, and to use oral and written communication with clarity. But if he does not also possess equal ability in appraising the accuracy of his ideas and feelings toward individuals of other national, religious, or racial groups, he has failed to learn the value of language.

The final appraisal of language can be made only by observing the changes that it causes individuals to make in their practice of democratic citizenship.

▪ Teaching a Second Language in the Elementary School

One of the interesting questions confronting persons responsible for evaluation and improvement of the language arts in the elementary curriculum is whether a second language should be taught in grade 6 and below. Since the early 1950's, there has been a marked increase both in the discussion of foreign language as a language arts area and in the number of schools offering foreign languages for young children.

TRENDS IN ELEMENTARY SCHOOL FOREIGN-LANGUAGE INSTRUCTION. By 1954, some 330,000 children in grades K-6 were receiving foreign language instruction, and 80 percent of these programs had been initiated within the preceding three years.[22] In 1956, the Modern Language Association was able to report that an additional 62,072 elementary school children had begun to study a second language during 1955.[23] It was highly likely, in view of recent trends, that by the school year 1957-1958, the number of children in grades K-6 who were learning a second language approached 35 to 40 percent of those enrolled in foreign-language courses at the junior-senior high school level.

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[22] K. W. Mildenberger, *Status of Foreign Language Study in American Elementary Schools, 1954* (Washington, D. C.: U. S. Department of Health, Education and Welfare, 1955).

Although a relatively small proportion of American elementary school children were being exposed to a foreign tongue by 1958, the trends are of great significance. To be explicit, fewer than 5000 children in grades K-6 were exposed to a second language in 1941. Eighteen years later, surveys indicate, more than 400,000 shared in this experience, and practically all this enrollment increase came after 1952! Teachers and parents undoubtedly will wish to evaluate the place of foreign language in the elementary school (commonly called "FLES") in many communities in the immediate future.

APPRAISING INSTRUCTION IN A SECOND LANGUAGE. Research has not, as yet, answered many of the questions that are involved in any discussion of FLES. It is possible, however, to suggest the kinds of problems that need to be explored before a foreign language becomes a part of the total language arts program in the primary or intermediate years. To assist local curriculum planners, the writers propose two evaluative aids: (1) considerations when deciding whether to introduce a second language in the curriculum, and (2) questions to be reviewed if it seems feasible to initiate FLES.

Shall we introduce a second language? A number of arguments are offered in support of the teaching of a second language. These need to be weighed carefully, with due regard for the local milieu. Some of the arguments for and against FLES are suggested below:

FOR	AGAINST
A second language has distinct cultural value. One does not fully understand his own tongue until he learns another.	Many American elementary school children have much to learn about the *English* language. Why introduce a foreign tongue?
Learning a second language trains the mind and sharpens the memory.	Mental training is an outmoded concept. The mind cannot be "trained" like a muscle.

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[23] "Foreign Languages in Elementary Schools," *The Foreign Language Program*, Report No. 3 (May, 1956).

FOR	AGAINST
We need linguists for positions in business and as a resource for national defense. Their preparation should begin in the grades, where children seem to grasp a foreign language quickly, as illustrated by youngsters who move to another country and acquire a new tongue within a few months.	We do not know that children can learn enough about a foreign language, in the average elementary school program, to justify eliminating or reducing other areas of study. The situation a child encounters when he moves to a foreign land and quickly learns a new tongue cannot be duplicated in most classrooms, since there is little chance to apply the language in daily life outside of school.
A second language builds sympathy, understanding, and brotherhood for the people whose language and culture are introduced.	Europeans are often bilingual or multilingual, but the possession of a second tongue has not notably increased their affection for one another (and, anyway, *whose* language shall we teach?). "Brotherhood" is more dependent on attitudes than on linguistics.

Problem-questions to consider when planning a foreign-language program. Clearly, with such diverse opinions being voiced, it seems that the "right" decision depends on local circumstances and the values of the curriculum planners. Here is a checklist of specific points to be appraised if the local community is inclined toward FLES after preliminary discussion:

(1) Do we want our elementary school children to develop a reasonable degree of fluency in a foreign language or merely to obtain an introductory knowledge preparatory to high school/college study?

(2) Will a second language really play a functional role—that is, be put to use by our children? Can foreign language study be made a meaningful experience?

(3) What is the probable cost of a program of the sort we have in mind?

(4) What can we eliminate, reduce, or combine in the curriculum to provide time for FLES?

(5) Can we find competent foreign-language teachers who also understand young children and the role of the language teacher in the total program?

(6) What language(s) shall be offered?

(7) When shall instruction be begun—in the kindergarten, primary, or middle grades?

(8) Who shall be given instruction? All children? The gifted? Those who elect to learn a second language?

(9) What methods of instruction and what organization for instruction shall be adopted?

(10) As the program develops, how shall we evaluate the success with which it is operating?

Insofar as the writers' educational values are concerned, there seems to be a place for FLES in the program. But a second language should be introduced only after careful thought and planning and only in those schools in which it can be justified by virtue of the background and needs of the specific pupil population.

It also seems wise to introduce a second tongue only after making certain that the proposed program is likely to build genuine fluency and that it subsequently will be followed up. There is little point in halfhearted instruction that merely pleases a few "culture"-minded parents because their youngsters can say, "Voulez-vous me donner une boite de bonbons au chocolat?" "¡Que tiempo mas hermoso!" or "Sprechen Sie bitte langsamer."

■ What Research Suggests for the Evaluation and Measurement of Language Skills

Since the well-conceived evaluation of the elementary curriculum is based on research rather than hunches, it seems highly appropriate to conclude this chapter with a brief résumé of findings pertaining to reading and literature, writing, spelling, and language usage. Some highlights of research studies are sampled for each of the several language fields as guidelines for the evaluator.[24]

READING AND LITERATURE. Reading readiness can be determined with considerable accuracy, but no *one* measure is sufficiently reliable for the *individual* child.

A child's home environment appreciably influences his readiness even as it colors the score he makes on I.Q. tests.

The "best" time for beginning organized reading instruction varies with individual development, a mental age of at least 6.2, and preferably 6.6, being desirable for most children.

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[24] Findings reviewed are drawn primarily from a study directed by Harold G. Shane in which over 700 language arts research reports were examined. Original data are preserved in a 1956 dissertation prepared at Northwestern University by Albert Poole.

Functional word analysis is helpful, but emphasis on phonetics generally should be postponed until a child has an M.A. of at least 7.0 years.

Reading rate, recall, vocabulary, and comprehension can be improved by systematic instruction, but stress on meaningful practice or drill should be deferred until at least second grade for the average child.

The reading program must be modified for the individual child. Individualized approaches to reading are currently receiving great emphasis.

Children's interests in literature run to fiction in the first six grades. A good story is more important than the format of a book. Reading interests have been widely studied and found to vary (although not consistently) with age, sex, intelligence, and similar factors. Comic books are read voraciously, but, contrary to common opinion, American children in the upper grades do not read them to a greater extent than do British children.

Reading disabilities in individual children are nearly always caused by more than one problem, often being the result of two or more of the following: physical deprivation or illness, meager or unwholesome environment, psychological or social adjustment problems, or low intelligence.

Evaluation of progress in reading should take account of the fact that arbitrary judgments should not be made about the reading skill or disability of any child without first gathering and studying data pertaining to the many factors that influence his achievement.

WRITING. Research tends to support the teaching of manuscript rather than cursive writing in the primary grades. A very large majority of schools teach manuscript writing, and the change to cursive letter forms most commonly occurs in grade 3. Studies have identified no problems traceable to the switch from manuscript to cursive.

It apparently makes no difference, in developing speed and legibility, as to whether oversize or standard pencils are used.

Most illegibilities are found in adult writing rather than in children's penmanship, with *a*, *e*, *r*, and *t* being the letters most poorly penned.

From 8-10 percent of our children write left-handed, and the majority of these are males. Hand preference is influenced by instruction, example, convenience, genetic factors, the specific nature of a given task, hand strength, and similar factors.

There is almost no conclusive research on creative writing, although a number of stimulating books and articles describe ways of encouraging self-expression.

SPELLING. A number of word lists have been painstakingly developed, and reports have also indicated some of the words and types of words (such as those with "ei" and "ie" combinations) that cause the most spelling errors.

Visual defects may or may not affect spelling skill. It seems likely that vocabulary, I.Q., pronunciation, and bilingualism are among the determiners of success or difficulties in spelling.

Research suggests that spelling should be taught on an organized basis rather than incidentally, but opinions vary as to the *extent* that spelling instruction should be formalized.

LANGUAGE USAGE. Children use relatively few types of punctuation and capitalization but attempt to employ most of these by the time they are in fourth or fifth grade. Many errors are due to omission rather than to misuse of capitalization and punctuation.

Grammar should be taught so as to stress its use in the oral expression and writing that children do for a reason rather than as an isolated skill. Sentence diagramming, while it may help older children to understand the components of the sentence, does not seem appreciably to improve language-test scores.

The few points sketched above suggest substantial research knowledge that the evaluator should bring to the appraisal and improvement of the language arts curriculum. It can scarcely be reiterated too often that evaluators and curriculum planners must be thoroughly informed if the program changes they contemplate are to have a firm foundation.

Summary

Intelligent citizenship, in a society characterized by speed and scope in communication, requires an understanding and control of language as a psychological instrument for learning, and as a vehicle for social thought and action. Instructional methods and classroom activities should help children: (1) to sense the values of the language arts in practical life situations, (2) to accept the responsibility to use language with honesty and accuracy, and (3) to recognize the role of language in developing personality.

The language arts when classified functionally include receptive communication—reading and listening—and expressive communication—oral and written expression. The school program should be so designed that children have the opportunity: (1) to discover the interdependence of each medium of communication, and (2) to develop critical ability in the application of each medium. Desirable educational values urge upon every teacher the need to accept the responsibility to assist children in attaining higher standards of psychological behavior when using verbal symbols. It is in this way that they expand and refine their understanding of language as a personal process in learning and in communicating ideas, values, attitudes, and information.

Continuous improvement in human relations should be a major goal in teaching the language arts. Children, through their use of receptive and expressive communication, need to be motivated to examine the validity of their ideas about and attitudes toward persons of other racial, ethnic, or national groups. Language arts activities should also serve to help children study current problems in human relations and to determine the role that language can play in lessening these problems. Language, when properly learned and intelligently used, can be a powerful instrument in advancing understanding among the nations of the world.

Discussion Questions and Suggested Activities

1. Examine some current magazines and newspapers. Identify some of the ways in which language is employed to persuade the potential buyer as to the merits or desirability of certain products or services. What are some ways in which the schools can make children aware of subtle (and sometimes misleading) selling techniques?

2. Methodically view some TV programs designed for children. Appraise the procedures used to "sell" children on certain products. Are any of the procedures potentially misleading or harmful?

3. Are there any means, principles, procedures, or techniques employed in mass media of communication that might be adapted and/or adopted for use in the elementary (or secondary) school in order to improve teaching and learning?

4. What are some of the ways in which the teacher can appraise growth in language and communication skills at a given grade level?

5. Discuss: "Specifically, what are some ways of helping children to use language-communication skills functionally during the course of a typical day in school?"

Selected and Annotated Readings

1. Herrick, Virgil E., and Leland B. Jacobs, eds., *Children and the Language Arts.* Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1955.

   An excellent presentation of theory, practice, and organization in the language arts program. In addition to the editors, eighteen language arts authorities participated by preparing chapters on writing, listening, grammar, and so on.

2. Hester, Kathleen B., *Teaching Every Child to Read.* New York: Harper & Bros., 1955.

   A particularly practical and informative "how-to-do-it" book in the field of reading.

3. Hildreth, Gertrude, *Teaching Reading.* New York: Henry Holt & Co., 1958.

   A comprehensive and definitive book by a distinguished research worker. Valuable both as a reference and as a text for those persons concerned with the over-all reading program.

4. Lee, Irving J., *Language Habits in Human Affairs.* New York: Harper & Bros., 1941.

   A readable treatment of general semantics, which, after a number of years, remains an important book for teachers interested in the influence of language on human behavior.

5. Packard, Vance, *The Hidden Persuaders.* New York: David McKay Co., 1957.

   The "popular" style used by Packard sometimes verges on the melodramatic. The book is nevertheless of interest as an unevenly documented report on the application of depth psychology in mass media, such as TV. One chapter treats the way in which children are made the target of advertising, and a section also points out how psychological persuasion techniques are used in political contests. This book should be read discriminatingly because it is not always based on research that can be defended.

6. Pei, Mario, *The Story of Language*. Philadelphia: J. B. Lippincott Co., 1949.

Pei writes in an absorbing fashion and in this volume provides a splendid general background for the teacher who seeks to strengthen his general cultural background in the history, structure, functions, and problems related to language.

7. Shane, Harold G., *Research Helps in Teaching the Language Arts*. Washington, D.C.: The Association for Supervision and Curriculum Development, 1955.

A summary of hundreds of research studies in such fields as reading, spelling, listening, and handwriting with implications for classroom practice.

10

Evaluating Understandings in Arithmetic

THE second half of the twentieth century will almost certainly witness even more rapid advances in man's use of new sources of energy, electronic controls, mass communication, automation in industry, and intercontinental transportation by jet-powered machines. As a result, there inevitably will be a greater demand for high competence in quantitative observation, analysis, and problem-solving. The mathematical and psychological foundation supporting further study in mathematics is begun in the elementary schools. The curriculum of the elementary schools must be so structured as to develop effectively the mathematical potential of youth and to serve the needs of a technological society.

O. Henry has been quoted as saying of the dictionary that "It is interesting but rather disconnected." The same may well be said of the arithmetic program in many schools. The degree of disconnectedness in the foundation for mathematics that pupils in some schools experience is in the curriculum, however, rather than in the language and science of numbers. The difficulties experienced by many pupils in arithmetic emerge from the indifferent quality of professional guidance and the mediocrity of the curriculum.

The most productive procedure for developing competence in quantitative thinking and consumer economics involves continuous evaluation of the objectives and pupil progress in arithmetic. Professional analysis and corrective interpretation of children's curricular experiences should be focused on: (1) the teacher's understanding of mathematical meanings and operations, (2) the content and instructional sequence of the curriculum, and (3) the abilities, needs, and progress of pupils. This chapter presents ideas, criteria, and suggested procedures that may be used by administrators and teachers in evaluating methods and materials with reference to developmental abilities of pupils in mathematical thinking and in applying the language and science of elementary mathematics.

▪ Two Approaches to Teaching Arithmetic

THE TRADITIONAL METHOD. The objectives, instructional methods, and curriculum activities that characterized the traditional approach to the teaching of arithmetic in elementary schools were based on a stimulus-response or mechanistic concept of learning and on an assumed disciplinary value of arithmetic as a means of training the mind. Children were required by external means of motivation and assignments to memorize basic computational facts and abstract rules of computation. Instructional methods were employed in order to attain speed and accuracy in computing abstract examples and in finding answers to verbal problems. Little concern was given to pupils' ability in comprehending mathematical meanings, in interpreting properly mathematical forms, and in defining examples and problems. The textbook, supplemented by workbooks and teacher-prepared drills, was the source of classroom procedures and was, in effect, the curriculum.

The primary purpose of traditional testing procedures was to determine acquired skills in "figuring" or computation. Teachers relied largely on text exercises in textbooks and workbooks, standard achievement tests, and prepared drills to obtain evidence of pupil progress in computation and solving verbal problems. Diagnostic instruments and procedures for appraising pupils' interpretation of important mathematical meanings and operations and their attitudes toward and interests in arithmetic were seldom used. Instruction and evaluation in this approach to teaching arithmetic were dominated by teacher concern for speed and accuracy in computing assigned examples and problems. Some pupils escaped the psychological restriction inherent in this approach and developed ability in quantitative reasoning. But far too many pupils, because of the lack of adequate understandings, found arithmetic difficult, learned to dislike mathematics, and acquired a predisposition to discontinue study in mathematics as soon as the opportunity presented itself.

THE MEANINGS METHOD. A significant change has become apparent, in recent years, in the objectives and curriculum practice in teaching arithmetic in elementary schools. Research and experimental studies in educational psychology and child development have contributed concepts and findings that have been valuable to administrators and teachers in formulating a sounder approach in determining objectives and in selecting instructional methods and materials for the arithmetic curriculum. Emphasis is often given now to the important idea that arithmetic is both a quantitative language and a science of numbers developed by man over the many centuries to express ideas of quantity, to indicate the relationships existing among quantities, and to expand the theory of numbers.

The objectives or desired outcomes in this more recent approach in organizing the curriculum in elementary mathematics are related to the following psychological and mathematical concepts:

(1) Children need experience and guidance in their mental discovery of the meanings, nature, and structure of the number system.
(2) Children should interpret arithmetic to be a language of quantitative thought and action.
(3) Children should discover and understand the mathematical meanings involved in each of the computational operations.
(4) Children should recognize that all applied arithmetic is based on mental analysis and computation. (Pencil and paper are useful, of course, to record partial steps and final results in mental mathematics.)
(5) Children should have experience and guidance in helping them to develop mathematical and psychological skills that are essential in solving examples and practical problems.
(6) Children should develop appreciations for and interest in arithmetic as an indispensable language and functional resource in industry, commerce, and the sciences.
(7) Children should have various opportunities to learn from their work in arithmetic many values and concepts related to consumer economics.
(8) Children should learn responsibility in applying self-imposed standards of critical thinking and accurate computation when

using the language and science of arithmetic both in school and in out-of-school situations.

The progress that children make in developing these eight understandings or competencies is effected by (1) the teacher's comprehension and interpretation of these competencies, (2) the quality of guidance, materials, and activities provided in the classroom, and (3) the accepted purpose and mental behavior of each child. These competencies cannot be developed through memory and drill. Their content and structure, to be consistent with the mathematical content and structure of arithmetic, are conditioned by the psychological methods used by children during their learning experiences in arithmetic. All arithmetical competencies are learned ways of thought and action that have become a part of the "under-the-skin" behavior of children.

Competence in understanding and applying the language and mathematical operation of multiplication, for example, is dependent on a functional mastery of the 81 basic combination facts. In the traditional method in teaching arithmetic, these combination facts were presented in table organization to be learned by memory or rote drill. Only if the goal is mere proficiency in mechanical multiplication, does this method of teaching and learning suffice. Many achievement tests measure ability in memorized performance in multiplication rather than quality of understanding and quantitative thinking.

In the meanings approach to teaching multiplication, the need for competence in a mastery of the basic facts in multiplication is recognized. The child's understanding of the meaning and operation related to each combination fact thus becomes a primary concern of the teacher. Practical situations and concrete materials are presented to assist children in discovering and developing an understanding of multiplication, its relationship to addition, and the mathematical function of the multiplicand, the multiplier, the partial products, and the product. When learning the combination 6 × 5 = 30, children can, for example, be presented with the problem, "What is the cost of 6 apples if the price of each apple is 5 cents?" They may first find the answer by adding six 5¢s, then discover that the multiplication fact 6 × 5 = 30 is a short operation in addition. In another situation children may be given 30 cards to be arranged in 6 groups of 5 each. The 6 groups of 5 cards may then be grouped in one group of 30 cards. From reflective observing and thinking, children may thus be helped to interpret readily the operational meaning of 6 × 5 = 30, the meaning of the multiplicand, the multiplier, and the product. They learn to think, six 5's equal 30. Through similar situations children may prepare from discovered learnings a table showing all the 81 combinations in an orderly arrangement, such as:

	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9
2	2	4	6	8	10	12	14	16	18
3	3	6	9	12	15	18	21	24	27
4	4	8	12	16	20	24	28	32	36
5	5	10	15	20	25	30	35	40	45
6	6	12	18	24	30	36	42	48	54
7	7	14	21	28	35	42	49	56	63
8	8	16	24	32	40	48	56	64	72
9	9	18	27	36	45	54	63	72	81

The process of evaluating results of teaching and learning in the meanings approach requires professional competence on the part of teachers, more class time devoted to questioning, reasoning, and proof, and greater emphasis on teacher diagnosis and children's diagnosis of how problems are solved. Teachers seek information about the children's understanding of and developmental abilities in arithmetic by directing their thinking to such questions as these:

(1) What is the content and operational structure of the psychological patterns each child is learning?
(2) How meaningful is each new mathematical term, operation, or principle to each child?
(3) What evidence may be observed that the child is applying previous learnings to help him develop insights in a new situation involving number?
(4) What evidence may be observed to show that each child is building proper organizational sequence in his mental system of arithmetic as he progresses from one topic to another?
(5) Does the overt communication of children reveal evidence of their concern for defining the example or problem?
(6) Is each child able to explain the mental process used in computa-

tion and problem-solving, and is he able to prove the validity of a mathematical concept or operation?

The concern of teachers in evaluating the work of children in arithmetic involves much more than determining the number of correct answers they manage to give on assignment of examples or problems. Through professional observation, listening, and interpreting of test data, able teachers strive to secure information regarding children's understandings of and thought processes in arithmetic. The information obtained is then employed to provide changes in the classroom environment that may more adequately serve the individual needs and abilities of the members of the class. Meaningful and correct thinking and reasoning and functional understanding of mathematical meanings and operations receive appropriate emphasis in addition to accuracy in computation and problem-solving. Evaluation in the meanings method serves teachers as a productive procedure for obtaining information that can be used in providing instruction and activities that will contribute effectively to children's meaningful and systematic learning and to their correct application of arithmetical procedures.

■ Some Functions of Evaluation in Arithmetic

The generally accepted function of evaluation instruments and procedures in the field of arithmetic has been to secure data to be used in deriving an evaluative judgment by teachers concerning children's progress. Improvement in teaching and learning actually should emerge from the application of evaluation to the interdependent factors in each arithmetical experience.

THE TEACHER'S SELF-EVALUATION. The teacher's understanding, both of arithmetic and of child development, condition his instructional methods and the learning responses made by children. Teachers who possess a limited preparation in mathematics and who have yet to acquire meaningful interpretations of the concepts, mental and mathematical operations, and the vocabulary inherent in arithmetic are forced to follow rigidly the "prescribed" curriculum, the course of study sequence or the textbook, and "rule-of-thumb" methods in teaching. In other words, the responsibility accepted by these teachers is for teaching the rules, making assignments limited exclusively to the textbook and workbook, and checking children's accuracy on answers to examples and problems. Unfortunately, such teachers are unable to provide instructional guidance, enriched curriculum, motivating questions, and the professional evaluation that are essential in helping children to find motivation and satisfaction in learning and applying mathematical meanings and mental operations in their use of the language and system of functional arithmetic.

The evaluation program of the schools should encourage teachers to make a self-survey of their personal understanding of arithmetic and of the desired outcomes they expect children to attain as a result of their classroom activities. Improvement in teaching can result from teachers' readiness to examine their interpretation of the language and science of arithmetic, the structural sequence of the decimal system, the basic mathematical concepts and principles, the functional meaning of terms and operational symbols, the psychological nature of quantitative thinking and problem-solving, and the factors affecting the psychological nature and operation of arithmetic that is learned by each child. Questions similar to the following may be used by teachers who desire to appraise their comprehension of arithmetic, to locate possible personal deficiencies, and to determine what assistance they should seek in improving their interpretation and understanding of this important subject in the school curriculum;

(1) What is my understanding of the historical background of the Hindu-Arabic number system?
(2) How adequately do I interpret the meaning and function of place value positions? The radix 10? The digits 1, 2, 3, 4, 5, 6, 7, 8, 9? The symbol for zero?
(3) Do I interpret properly the mathematical and mental operations involved in addition, subtraction, multiplication, division of integers, fractions, and decimals?
(4) Do I understand the different meanings related to a fraction as a number? As an expression of ratio? What is the numerical meaning of the denominator? Of the numerator?
(5) How adequate is my understanding of decimal fractions? Of decimal numbers? Of percent?
(6) How adequate is my interpretation of the meanings and operations involved in the English-United States system of measures? Of the metric system of measurement?
(7) Do I possess a functional understanding of the sequential or developmental levels involved in learning to apply the fundamental operations in computation of integers, common fractions, and decimals with meaning and accuracy?

(8) What is my interpretation of the psychological and mathematical processes and abilities that underlie competence in quantitative thinking and problem solving?
(9) Do I interpret properly the idea that arithmetic is a foundation for all mathematics and the sciences?
(10) What is my appraisal of the importance of a knowledge of arithmetic in an advancing technological society?

The competence of teachers is the core of a purposeful and meaningful curriculum in arithmetic. This quality of professional leadership is dependent upon an understanding of the foundational concepts of the structure, sequence, and operation of language and system of elementary mathematics. Teachers who find that they strengthen their understandings of number through self-evaluation may derive valuable outcomes from (1) critical study of selected books and articles, (2) participating in discovery discussions with other teachers, (3) working with multisensory aids, (4) taking refresher courses in mathematics, and (5) joining the children as a codiscoverer of mathematical meanings and the interests to which such discovery leads.

EVALUATION OF INSTRUCTIONAL METHODS. The nature of the instruction in a classroom reveals the educational philosophy and mathematical competence of teachers. This is due to the fact that the purpose and content of teaching procedures actually exist only in the psychological behavior of individual teachers. The abstract rules and computational difficulties that harass many pupils do not originate in the number system; they emerge from unsound instruction that leads to poor learning. Often these difficulties are the direct result of the child's lack of opportunity to receive from the teacher the assistance required in discovering and learning meaningful and proper thought patterns in the classroom. Arithmetical knowledge and instructional procedures do not exist in a vacuum. Their meanings and outcomes are to be found in the quality of the psychological interaction between teachers and children. The instructional methods formulated by each *teacher* as a result of his understanding of arithmetic exert a powerful influence on the methods *children* use in a learning; on their understanding of, interest in, and use of functional arithmetic.

Frequent appraisal of the psychological soundness of classroom methods constitutes an important part of an effective program of evaluation. Principals and supervisors may obtain valuable information concerning classroom instruction by directing attention to such questions as the following when they are working with a teacher in the classroom:

(1) What appears to be the degree of the teacher's competence in arithmetic as revealed by his methods of teaching?
(2) Is there evidence that the teacher's basic purpose is to help children to learn arithmetical meanings and to develop skill in quantitative thinking?
(3) Does the teacher show interest in and appreciation for arithmetic?
(4) Does the teacher take time to assist children in developing readiness for each new learning experience?
(5) Is effective use made of the textbook? Of multisensory learning aids? Of supplementary materials?
(6) Are children encouraged to ask questions when they are puzzled or confused?
(7) How much emphasis is placed on abstract drill and speed for speed's sake?
(8) Are children encouraged to talk about mathematical processes they apply when working examples and/or problems?
(9) Does the teacher's objective seem to be limited to accuracy and speed in computation, or does it encompass individual development in quantitative reasoning and functional consumer economics?
(10) What use of diagnostic procedures is made by the teacher in evaluating individual needs and achievement?
(11) In what degree is the work in arithmetic correlated with other subjects and with school and community activities?
(12) Are principles of good mental hygiene reflected in the classroom?

These and similar questions focus thinking on the purpose, content, and emerging outcomes of instructional methods. The information secured by the supervisor can be most helpful as a starting point in finding ways to encourage teachers to accept suggestions for improving their procedures and materials in guiding and appraising children's understanding of arithmetic and their use of mental operations in applied arithmetic.

CURRICULUM CONSISTENCY. Since the curriculum in each school system may be interpreted as a design for learning that represents the thinking and the decision-making of administrators, supervisors, and teachers with regard to the arithmetical understandings that children are expected to develop. Preparation and periodic evaluation of the curriculum is second in importance to creative instruction in each classroom. However, a professionally designed curriculum is of real importance as an agreement among the faculty as to such essential elements as: (1) objectives for each grade or group, (2) organizational sequence of topics, (3) allocation of time for arithmetic, (4) methods to be used when introducing new topics, (5) standards of work, (6) resource activities and materials, (7) productive use of audio-visual learning aids, and (8) procedures for meeting individual differences. Also, the curriculum guide is useful if it contains recommendations concerning selection and utilization of community resources and suggestions about instruments and procedures for diagnosing and evaluating children's psychological behavior and for gauging their progress in arithmetic.

Consistency and sequence in the curriculum, for instance, in introducing new topics and in sustaining previous learnings, helps to insure a proper learning environment for children. It is important to protect the opportunity for professional initiative on the part of teachers; it is equally important that individual initiative in teaching be influenced by faculty consensus on organization of topics and psychological sequence in instruction. Children may experience frustration that can lower their motivation to the vanishing point when they are required to make unnecessary changes in previous learnings and methods to fulfill the peculiar requirements of a different teacher. Children, for example, who have learned to think of subtraction as a mathematical and mental operation in finding the difference between two numbers may be confused when the teacher of the next grade requires them to use the "take-away" idea and method. Similar confusion may arise when children who have learned to divide fractions by the like-fraction method are expected by another teacher to learn and use the inversion-cancellation method. Consistency in instructional procedures from grade to grade is imperative in safeguarding for children the opportunity to build psychological sequence in their learning of meanings and operations in arithmetic. Inconsistency in teaching the foundational processes of arithmetic may be a major contributing cause of slow progress on the part of many children rather than what the teacher construes to be a lack of mental potential on the part of these children.

The writers have compiled a rather extensive list of items that may be useful to groups of teachers who desire to evaluate and improve the degree of consistency or professional agreement concerning the curriculum in arithmetic. The value of the items lies not in the statements themselves but in thinking about and deciding what items should be included in a statement of agreement that an elementary school faculty may prepare.

Items presented here are for evaluative discussion. The faculty of each school has the professional responsibility for the preparation and application of a similar statement:

Do Teachers Agree:

(1) That the primary objective in teaching arithmetic is to assist children: (*a*) in discovering and learning mathematical meanings, (*b*) in developing the thought processes involved in computation, (*c*) in developing ability in reasoning in quantitative situations, (*d*) in developing logical procedures in solving problems, and (*e*) in acquiring interest in and appreciation for the value of arithmetic in contemporary society?

(2) That special attention should be given to the one-to-one relationship between amounts of quantity, conceived idea of amount, and numerical symbols used to record ideas of amount?

(3) That in the early grades all counting should be a rational process—that is, learning to count by counting concrete objects?

(4) That in counting from 11 to 19, children should first think one 10 and 1; one 10 and 2; one 10 and 3; etc.? (This helps children to think of numbers larger than 9 in a way psychologically consistent with decimal place-value organization of the Hindu-Arabic number system.)

(5) That the digits 1, 2, 3, 4, 5, 6, 7, 8, 9 are symbols that express the frequency of units in any place-value position?

(6) That the zero expresses something? (It shows the absence of units in any place-value position.)

(7) That 9 is the digit that expresses the greatest possible frequency of units in any given place-value position? When the number of units in any place-value position is 10 or more, one unit in the next higher place-value position must be substituted, in thought, for 10 of the units in the given place-value position.

(Twelve 1's must be thought of and notated as one 10 and two 1's.)

(8) That there is a mathematical transfer required in thinking when one is counting or adding concrete objects and adding notated numbers? (Notated numbers express amount of numerical units.)

(9) That addition is a mathematical and mental process of combining numbers by using the addition facts and notating the total with one number that is equivalent in total amount?

(10) That pupils, when they are finding the sum in column addition, should be encouraged to add from top to bottom in each place-value position? (Verification of the accuracy of the sum may be checked by adding from the bottom to the top.)

(11) That addition be presented in an organizational procedure that is consistent with the developmental levels involved in addition?

(12) That frequent diagnosis should be undertaken by teachers to determine the type and causes of difficulty and also to determine the progress level of different pupils?

(13) That children be expected to interpret notated subtraction as a mathematical and mental process for finding the numerical difference between two notated numbers? ($36 - 24 = ?$ is answering by thinking, "What number expresses the numerical difference between 36 and 24?)

(14) That the mathematical and mental concept of substituting for one unit in a given place-value position 10 units in the next lower place-value position must be properly understood before examples are assigned that require the application of the idea of numerical substitution? ($72 - 36 = ?$ Before finding the numerical difference, 72 is thought of as six 10's and twelve 1's.)

(15) That adequate diagnosis should be made by teachers so that they can appraise the psychological needs and performance level of individual pupils?

(16) That multiplication be introduced as a rapid method to add, mentally, the number of digits in each place-value position in the multiplicand as indicated by the digits in the place-value positions in the multiplier?

(17) That the partial-product method in multiplication be used when the multiplier is a two-place-value number or larger until chil-

dren give evidence of properly understanding the multiplicative process?

(18) That children be asked to read and to state the meaning of the question asked by an example in multiplication before starting to compute the answer? (Children should be encouraged to estimate an answer before computing.)

(19) That pupils verify the accuracy of the product by repeating their mental computation? (The practice of verifying the product by dividing the product by the multiplicand is questionable. Multiplication and division ask specifically different quantitative questions.)

(20) That children understand that a different interpretation of multiplication is involved whenever the multiplier is common fraction, a pure decimal fraction, or a mixed number?

(21) That special attention be given to instructional procedure which will enable children to develop mental mastery of the 81 basic combination facts in multiplication? (See page 000.)

(22) That adequate diagnosis should be undertaken by teachers to determine the degree of understanding and ability children have developed in multiplication?

(23) That teachers use appropriate situations and take sufficient time in helping children to discover and interpret the mathematical and mental concepts and processes involved in division of notated numbers?

(24) That teachers take time in helping children to interpret and comprehend the two kinds of questions answered by division: (*a*) What is the numerical ratio between two numbers? and (*b*) When a given number is divided into numbers of like numerical value, how many such numbers will there be? (Some ratios and some numbers will involve a remainder.)

(25) That pupils be asked frequently to read and state the mathematical question asked by the division example before thinking through the computational process? (Children should be asked to estimate the quotient prior to computation.)

(26) That children be expected to apply their learnings in multiplication when thinking and computing examples in multiplication? (Even though any division example can be solved by subtraction, it is more consistent with the mathematical sequence that children use their learnings in multiplication when computing in division.)

(27) That teachers periodically use diagnostic instruments and procedures to determine the types and causes of difficulties that may retard the children's progress in applying division with reasonable speed and accuracy?

(28) That children learn that a common fraction symbol expresses one or more units of quantity? (The unit may be a fractional part of another unit; it may also be a unit of a given group of units; it may also express ratio.)

(29) That teachers provide instruction that will help pupils to discover and understand that in computation with fractions only the numerators (fraction units) are added, subtracted, multiplied or divided?

(30) That teachers help pupils to learn that only fractions of like numerical value—that is, *like* fractions—can be added, subtracted, multiplied, or divided?

(31) That teachers take time to help pupils to learn the proper meanings involved when changing fractions to higher or lower terms? (The abstract rule can be derived later.)

(32) That division of common fractions should be introduced by the like-fraction method? (The inversion and cancellation method is a more complex process and should be postponed until after children develop understanding of and skill in division of common fractions.)

(33) That children frequently be required to read, interpret, and express the meaning of the mathematical question asked by different kinds of examples involving common fractions?

(34) That all examples involving common fractions or mixed numbers be limited to numbers of reasonable size until children have acquired the ability to interpret and compute examples involving addition, subtraction, multiplication, or division of common fractions or mixed numbers?

(35) That teachers prepare and apply diagnostic procedures to determine the understandings, skills, and needs of children in computation involving fractions and mixed numbers?

(36) That children be helped to discover and learn that the basic difference in computation with decimals, as compared with integers, is the numerical value of numbers—that is, $34 + 52 = ?$ $3.4 + 5.2 = ?$ $.34 + .52 = ?$ $34.34 + 52.52 = ?$

(37) That children be taught in the introductory periods in computa-

tion with decimals to observe the correct decimal value of decimals when multiplying and dividing? (Postpone the abstract rules until children develop meanings and skills—that is, (*a*) *multiplication with decimals:* multiply as with whole numbers and point off as many places in the product as there are decimal places in multiplicand and multiplier; (*b*) *division with decimals:* when the divisor is a pure decimal or a mixed number, multiply both divisor and dividend by a power of 10 needed to make the divisor a whole number, and then divide as with whole numbers.)

(38) That there is a different mathematical question asked: (*a*) When the divisor is a number larger than the dividend? (*b*) When the divisor is a number smaller than the dividend?

(39) That children be given many practical situations from which to derive meanings and operational skills related: (*a*) to using the English-United States system of measures? (*b*) to using the metric system of measures?

(40) That children be given guidance in developing such abilities in problem-solving as: (*a*) reading to define the problem and to locate known facts and questions; (*b*) reflective thinking in analyzing each situation and in formulating an hypothesis that may suggest the solution; (*c*) using computation to verify hypothesis and the estimated solution or answer; (*d*) deriving generalization and values related to economics in the home, community, and nation?

■ Evaluation of Desired Outcomes in Arithmetic

Any program of evaluation must be planned and administered with reference to the objectives, or desired outcomes, accepted as important in a school system. There are essential concepts, terms, and skills involved in the psychological processes that children must learn in the elementary school years in order to experience adequacy and develop an interest in using the language and science of numbers in practical life situations as well as in the study of the theory of numbers. Children who are not motivated to learn these basic meanings and skills may be seriously handicapped in the various occupational fields in the next 25 years.

The first step the faculty takes in evaluating the progress children make in developing arithmetical competence involves the preparation of a statement based on group consensus as to the learnings that children are expected to acquire in the primary, intermediate, and junior high grades. Various procedures and instruments may then be selected for use in determining the progress made by individual children in attaining these outcomes.

The writers have prepared a list of questions that may be used effectively by teachers in measuring the developmental progress made by children in learning some basic meanings and mathematical operations in elementary mathematics. They recommend that teachers in a school system prepare a comparable list of questions for the primary teachers, for the intermediate grade teachers, and a comprehensive list for the teachers of mathematics in the junior high school. The list of questions is illustrative and is addressed to the teacher. A rephrasing of the questions will give evaluative questions that can be used by the children themselves in a classroom. Time devoted by teachers and children to appraising answers to these and similar questions may produce information conducive to improvement in teaching and in learning of arithmetic that is as valuable or even more useful than children's scores on achievement tests or their answers to abstract drill assignments.

A. *Some Desired Outcomes in Counting and the Number System*
   (1) Do the children understand the cardinal and ordinal meaning of the digits 1 to 9; numbers 10 to 19 and 20 to 100?
   (2) Do the children interpret and think correctly of the notated number 10 representing one unit with a decimal value of 10 (10 = one 10 and no 1's)?
   (3) Do the children, when counting, think of grouping numerical units that represent amount or units of quantity?
   (4) Do the children understand the meaning and use of zero (0) in the decimal system of numerical notation?
   (5) Do the children understand the sequence order of place-value positions as based on 10 and powers of 10?
   (6) Do the children understand the difference between rote counting and mathematical counting?

B. *Some Desired Outcomes in Addition of Integers, Fractions, and Decimals*
   (1) Do the children properly identify the meaning of the term *addends?*
   (2) Do the children interpret addition as a mathematical and

mental process of grouping the digits in each place-value position and notating the total with one number?

(3) Do the children show evidence of interpreting correctly and in using with accuracy the 81 basic combination facts?

(4) Do the children understand the mathematical reason and process involved when substituting one unit in the next higher place-value position for 10 units in a given place-value position when the sum is 10 to 19, 20 to 29, etc.

(5) Do the children understand the relationship of concepts and mathematical processes involved in adding integers, common fractions, pure decimal fractions, and mixed numbers?

(6) Do the children accept responsibility for meanings, neatness, and accuracy in all their written computation in addition?

C. *Some Desired Outcomes in Subtraction of Integers, Common Fractions, and Decimals*

(1) Do the children interpret properly the difference in meaning and mental operation between subtracting concrete quantity and subtracting notated integers, common fractions, and decimals?

(2) Do the children understand and *can they apply* correctly the mathematical and thought process of *substitution* in any subtraction example when a digit in any place-value position in the minuend is smaller than the digit in the same place-value in the minuend?

(3) Do the children understand why the process of subtracting notated numbers requires finding the numerical difference between the minuend and the subtrahend?

(4) Do the children understand the relationship of concepts and mathematical processes involved in subtracting integers, common fractions, pure decimal fractions, and mixed numbers?

(5) Do the children accept responsibility for meanings, accuracy, and neatness in all written computation in subtraction?

D. *Some Desired Outcomes in Multiplication of Integers, Common Fractions, and Decimals*

(1) Do the children interpret multiplication to be a mathematical and mental operation in grouping a given number of like-value integers, common fractions, or decimals into one group and notating the product or total with one number?

(2) Do the children understand that the multiplicand represents

one of the like-value numbers, and that the multiplier shows the specific number of numbers like the multiplicand that are to be added by multiplication?

(3) Do the children give evidence of understanding and of having operational mastery of the 81 basic combination facts in multiplication?

(4) Do they comprehend properly the mathematical function of the symbol for zero (0) in multiplication, either in a place-value position in the multiplicand or in the multiplier?

(5) Do the children show evidence of interpreting and using correctly the mathematical process of *substitution* when required in a place-value position in multiplication?

(6) Do the children understand the meaning and function of partial products in multiplication? Do they recognize that there may be a short process in notating the result of mental multiplication, but that in the *thought* process there is only one complete operation?

(7) Do the children recognize and understand the mathematical difference in thinking required when the multiplier is an integer and when the multiplier is a common or decimal fraction?

(8) Do the children recognize in multiplication that when the multiplier is a mixed number two different interpretations and applications of multiplication are involved?

(9) Do the children give evidence of understanding the relationship of mathematical concepts and operations that apply to multiplication of integers, common fractions, decimal fractions, and mixed numbers?

(10) Do the children accept responsibility for meanings, accuracy, and neatness in all written work in multiplication?

E. *Some Desired Outcomes in Division of Integers, Common Fractions, and Decimals*

(1) Do the children show evidence of proper interpretation of the meanings and operations in division when the process is applied to given concrete materials as contrasted with division of numbers—integers, fractions, and decimals?

(2) Do the children show evidence of correct interpretation of the meaning and function of the dividend? Of the divisor? Of the quotient? Of the division sign? Of uneven division?

(3) Do the children show evidence of solving examples in division by using their mastery of the 81 basic combinations in multiplication?

(4) Do the children show understanding and display correct use of the rather abstract, complex thought process that is involved in division when the divisor has two or more place-value positions?

(5) Do the children apply with meaning and accuracy the like-fraction method when working division examples with common and decimal fractions?

(6) Do the children interpret correctly the change in the mathematical question and operation in division when the divisor is an integer, fraction, or decimal number that is larger than the integer, fraction, or decimal number that is the dividend? Do they understand why, in such examples, the quotient is always a number less than 1?

(7) Do the children verify accuracy of the quotient by (*a*) repeating the division operation, or (*b*) by multiplying the divisor by the quotient to determine if the product is a number equal in numerical value to the number that is the dividend? (In cases where the division is unequal, the remainder must be added to the product.)

(8) Do the children give evidence of their correct interpretation of all notated examples in division that express the question, "What is the numerical relationship between two given numbers?" (Common fractions, pure decimal fractions, and mixed numbers are to be interpreted as *numbers*.)

(9) Do the children accept responsibility for accuracy in mathematical interpretation and computation in all written work in division?

F. *Desired Outcomes Related to Equivalents*

(1) Do the children interpret correctly the quantitative relationship and also the mathematical difference between such equivalents as the following?

(*a*) $\frac{1}{2} = \frac{2}{4}$ or $\frac{4}{8}$; $\frac{6}{8} = \frac{3}{4}$; $\frac{6}{12} = \frac{2}{4}$ or $\frac{1}{2}$; $1\frac{1}{4} = \frac{5}{4}$; $\frac{17}{3} = 5\frac{2}{3}$

(*b*) $1. = 1.0$ or 1.00; $.5 = .50$; $2.0 = 2$; $.250 = .25$

(*c*) $\frac{3}{4} = .75$; $\frac{1}{2} = .5$ or $.50$; $1\frac{5}{8} = 1.625$; $\frac{2}{3} = .66\frac{2}{3}$

(*d*) $\frac{1}{2} = .50 = 50\%$; $\frac{3}{4} = .75 = 75\%$; $4\frac{3}{8} = 4.375 = 437.5\%$

  (2) Do the children understand and apply correctly the mathematical meaning and mental process involved when changing common fractions either to higher terms or to lower terms? Changing a mixed number to an improper fraction? Expressing a number as percent?

G. *Desired Outcomes in Practical Measurement*
  (1) Do the children understand the meaning of denominate numbers?
  (2) Do the children give evidence of their interpretation and meaningful use of:
    (*a*) the English-United States system of measures?
    (*b*) the metric system of measures?
  (3) Do the children show evidence of their understanding of and ability in adding, subtracting, multiplying, or dividing denominate numbers?
  (4) Do the children understand the importance of precise measurement in industry and business?

H. *Desired Outcomes in Solving Problems*
  (1) Are the children able to read properly when defining verbal problems?
  (2) Do the children recognize the psychological and mathematical difference between a problem and a problem-solver?
  (3) Are the children able to formulate a hypothesis to a given problem? Are they able to estimate, before computation, a reasonable answer?
  (4) Are the children able to solve problems that do not include numbers?
  (5) Do the children give evidence of interest and ability in deriving values and generalizations related to consumer economics from their work with textbook problems, school problems, and family or community problems?

■ Instruments for and Procedures in Evaluating the Understanding and Needs of Children in Arithmetic

Both commercial tests and teacher-made tests are used with best results when they are selected or prepared and administered with due consideration for the accepted objectives and curriculum of a school system. The ultimate worth of evaluative instruments and classroom procedures is dependent on the teachers' *interpretation* of their test findings and the changes they introduce as a result in instructional methods and in their thinking concerning the psychological needs and progress of children.

The professional status of teachers is properly recognized and safeguarded when the policy of the school administration invites teachers to participate in the selection of commercial tests and in administering and scoring them. However, caution must be exercised in a school system where there is a central evaluation and research bureau so as to prevent divergence in thought and action between evaluation procedures that are centrally directed and teacher instruction. Teachers should be encouraged to rely on the services of such a bureau and also should expect to accept personal responsibility for selecting, administering, and interpreting test scores and other findings that illuminate the performances of individual children in each classroom. Tests and other procedures in classroom evaluation can be justified only in terms of the improvement that is secured, both in teaching and in learning, as a result of their use.

ACHIEVEMENT TESTS. Standardized achievement tests are the most widely used instruments for appraising the progress of children in computation and problem-solving. A major merit of such tests is that they have been scientifically constructed to insure reliability and validity. The authors of each such established arithmetic achievement test also prepare and make available a manual of instructions concerning directions for administering and scoring the test and for interpreting children's scores. Different forms of such instruments are published in order that teachers may compare the progress made by children during a school year and during the different years spent in an elementary school.

The chief purpose of standard achievement tests is to measure skill in computing abstract examples and solving verbal problems. Some limitations of these tests are: (1) the small sample of the different developmental levels in computation included in a given test, (2) limited evaluation of quantitative analysis and thinking, and (3) lack of appraisal of children's understanding of important mathematical meanings, thought processes, and vocabulary.

Standard achievement tests can serve a useful function in the schools when administrators and teachers observe their purpose and their limitations and use them as teaching aids rather than as means for comparing individual children, groups, or the scores made by different teachers' classes at the same grade level in a school system.

Some of the standardized achievement tests now available for use in school systems, and which include sections dealing with arithmetic, are:

1. *California Achievement Tests* (Los Angeles: California Test Bureau)
2. *Coordinated Scales of Attainment* (Minneapolis: Educational Test Bureau)
3. *Iowa Every-Pupil Test of Basic Study Skills* (Iowa City: State University of Iowa)
4. *Metropolitan Achievement Tests* (New York: World Book Co.)
5. *Modern School Achievement Tests* (New York: Bureau of Publications, Teachers College, Columbia University)
6. *Stanford Achievement Tests* (Stanford: Stanford University Press)

There are also numerous tests that deal with some special phase of arithmetic, such as the various *Brueckner Diagnostic Tests.* The reader is referred to the most recent edition of Oscar K. Buros' *Mental Measurements Yearbook* for additional information. The yearbook gives each major standardized arithmetic test a searching appraisal.

INFORMAL TEACHER-PREPARED DIAGNOSTIC INSTRUMENTS. Teacher-made testing instruments can be most effective in determining the specific abilities and difficulties of children when the five following suggestions are observed:

(1) Each instrument is prepared by the teacher with reference to the topics that have been studied in arithmetic by his group.
(2) The teacher designs *carefully* the questions and examples included in each instrument.
(3) Attention is given to sequence of the developmental operation.
(4) Emphasis is given to correct interpretation of basic mathematical meanings, questions, and vocabulary.
(5) The responses of children are so prepared that they can be properly interpreted.

The psychological attitude and response of each child to such diagnostic instruments are more favorable when teacher and children discuss the results rather than when the child merely receives a numerical score or grade.

Teachers in a school may save much time if they share the work involved in constructing informal diagnostic instruments for the different grades for: (1) addition of integers, (2) subtraction of integers, (3) multiplication of integers, (4) division of integers, (5) common fractions, (6) vocabulary, (7) mathematical meanings, (8) addition of decimals, (9) subtraction of decimals, (10) multiplication of decimals, (11) division of decimals, (12) problem-solving, (13) practical measurement, (14) computational thinking, and (15) consumer economics.

A file of locally constructed diagnostic instruments can be a valuable means of appraising the progress of children, of stimulating professional ability in teacher diagnosis, and of improving teaching methods.

The following illustrations show, in abbreviated form, some of the types of diagnostic instruments teachers may wish to prepare for classroom use.

DIAGNOSTIC INSTRUMENTS
SUBJECT TOPICS—SAMPLE ILLUSTRATIONS

I. Meaning of Numbers—The decimal number system—notation.

1. Look at the number *483*. Put a circle around the digit that represents the largest frequency of place-value units.
2. Look at the number *307*. Put a line under the symbol that identifies the absence of units.
3. Look at the number *278*. Draw a line under the base position that identifies the largest decimal value.
4. Use digits, 3, 7, 2. Notate the largest possible three-place-value number.
5. Write the smallest possible three-place-value number.
6. Write the largest possible three-place-value number.

II. Meaning of Fractions (Common).

7. Look at the fraction $3/4$ ft. Draw a circle around the symbol that identifies the base.
8. Look at the fraction $2/3$ yard. How many fractional units are notated?
9. Look at the fraction $5/6$ ft. What is the size of each fractional unit?
10. Look at the fractions $3/4$ ft., $5/6$ yd., $5/12$ ft. Which fraction notates the smallest measurement size units?
11. Draw a circle around the fractions that are in their lowest terms: $8/12$, $3/4$, $6/10$, $9/10$, $6/9$, $5/6$.
12. $37/6$ is called an ____________________ fraction.

III. Meaning of Decimal (Fractions).

VII. Multiplication—Integers.

Row 1.	2 ×2	3 ×2	2 ×4	4 ×2	5 ×1
Row 2.	4 ×6	7 ×8	5 ×6	9 ×9	8 ×7
Row 3.	22 × 2	31 × 3	12 × 4	11 × 6	22 × 4
Row 4.	24 × 3	38 × 2	14 × 5	12 × 8	26 × 3

VIII. Division—Decimals.

Row 1.	$.3/\overline{.6}$	$.02/\overline{.08}$	$.2/\overline{.4}$	$.04/\overline{.08}$	$.3/\overline{.9}$
Row 2.	$.2/\overline{1.4}$	$.4/\overline{3.6}$	$.5/\overline{7.5}$	$.04/\overline{.24}$	$.08/\overline{.64}$
Row 3.	$.3/\overline{6}$	$.4/\overline{24.}$	$.08/\overline{16.}$	$.05/\overline{1.}$	$.6/\overline{36.}$

IX. Fractions (Common)—Multiplication.

Row 1.	$2 \times \frac{1}{3}$	$3 \times \frac{1}{4}$	$7 \times \frac{1}{8}$	$5 \times \frac{1}{6}$	$4 \times \frac{1}{5}$
Row 2.	$2 \times \frac{3}{4}$	$4 \times \frac{3}{4}$	$5 \times \frac{3}{5}$	$8 \times \frac{5}{8}$	$3 \times \frac{5}{6}$
Row 3.	$\frac{1}{2} \times 6$	$\frac{1}{4} \times 12$	$\frac{2}{3} \times 9$	$\frac{3}{5} \times 25$	$\frac{4}{8} \times 32$
Row 4.	$\frac{1}{3} \times \frac{1}{3}$	$\frac{3}{4} \times \frac{1}{2}$	$\frac{3}{8} \times \frac{1}{2}$	$\frac{2}{3} \times \frac{3}{4}$	$\frac{3}{4} \times \frac{3}{4}$

X. Fractions (Decimals)—Multiplication.

Row 1.	.2 × 4	.3 × 3	.04 × 2	.4 × 2	.02 × 4
Row 2.	.8 × 4	.7 × 5	.04 × 6	.09 × 9	.9 × 8
Row 3.	4. × .2	6. × .4	3. × .02	8. × .05	10 × .5

THE TEACHER-CHILD INTERVIEW. The answers that children give to examples and verbal problems do not reveal clearly the psychological process used by each child in finding the answers and the meanings attached to the answers. Teachers may more fully discover significant information concerning the unique psychological content and process of a child when in a teacher-child interview the child is asked to compute orally and is asked to explain his interpretation of the question asked or the meanings involved or the meaning of the answer. Such interviews, when carried on in a relaxed atmosphere consistent with good mental health, foster confidence and frankness on the part of children and encourage them to tell the teacher what is understood and what is confusing in their work in arithmetic. Children should have experiences in such interviews that cause them to seek rather than to refrain from participation in diagnostic interviews with their teacher.

CLASS-GROUP DIAGNOSIS. Teachers may motivate children periodically to engage in a group evaluation or diagnosis of their behavior and progress in arithmetic. Discussion may be focused on such questions as these:

(1) What meanings have we learned from our class work?
(2) How are new learnings related to previous learnings?
(3) What difficulties have been encountered since the last group diagnosis?
(4) What steps need to be taken to improve quantitative thinking and mental computation?
(5) Why is it a normal situation for pupils to differ as to learnings and needs?
(6) How may members of the group help one another to improve in their understanding and use of arithmetic?

EVALUATION OF WRITTEN WORK. One difficulty that many children encounter in arithmetic is that of coping with too much assigned written work. It is easy for teachers to assign examples to be copied and worked from the textbook or from the blackboard. Without adequate motivation and sequential spacing, such drill assignments can lead to faulty habits and inaccurate or careless thinking. The desired goal in all written work should be to stimulate the desire for self-improvement in meaningful mental operations. Children may experience more satisfactory progress in learning and applying arithmetical concepts and mental skills if more time in class is devoted to correct reading and interpretation of examples or problems, to discussion of the mathematical meanings and operations involved, to illustration of the computational process, to showing proof of the accuracy of the solution, and to discussion of consumer and economic values and usage of arithmetic.

Written work, when properly used can, of course, be a source of useful information about certain children's work habits. Analysis of specimens of recorded mental computation and written work may be based on such questions as these:

(1) Did the child give evidence of understanding the directions?
(2) What kinds of errors were made?
(3) How well did the child meet reasonable standards in penmanship and arrangement of work?
(4) Does the written work reveal specific attainments and/or weaknesses?

The analysis of written work is more productive if the teacher confers with individual children after his appraisal of their written work and talks over steps to be taken to correct faulty concepts and incorrect mental operations. Best results cannot be obtained where teachers are too quick to give sharp criticisms and harsh judgments. The primary purpose of all diagnosis is to gain information to be used in encouraging children to strive for self-improvement. What use children make of teacher evaluation and diagnosis depends on the purposes, values, and feelings that have reality only in the "under-the-skin" behavior of each child.

THE USE OF TEXTBOOKS AND WORKBOOKS. The more recently published textbooks in arithmetic have been designed to assist children in learning, through quantitative reasoning, the mathematical meanings and the principles of computation that are the content of the language and system of arithmetic. Topics are presented and explained with concern for organizational sequence and sustained learnings. Productive results may be obtained when teachers and children devote more time to reading and to interpreting explanation, illustrations, examples, and verbal problems. Enrichment of the textbook contents results when teacher and children accept the opportunity to draw heavily upon valuable resource-situations and materials to be found in the school and in the community.

The extent to which workbooks are used in a classroom, and the way they are used, indicates clearly whether the major instructional objective is mechanical speed and accuracy in computation and problem-solving or the discovery of mathematical meanings and the development of quantitative thinking in computation and problem-solving. The use of workbooks should be appraised in relationship to one's philosophy of education and the concept of teaching and learning that is accepted and practiced by the school faculty. Under professional guidance, workbooks can be used by teachers and children so as to supplement the curriculum in arithmetic. Teachers who possess an understanding of and an interest in arithmetic use evaluation instruments and procedures, textbooks, workbooks, multisensory aids, and other materials as means rather than ends in helping children to experience continued improvement in their understanding and use of arithmetic, a foundation for further study in mathematics, and a tool for use in the sciences.

■ Summary

The unprecedented progress that has been achieved in industry, business, the professions, and in the military could not have been made without the thinking and research of persons who possess competence in quantitative analysis and computational thinking. Furthermore, effective citizenship and success in occupational endeavor in the years ahead will require of all children now in elementary school a functional understanding of the meanings, principles, and operations to be found in arithmetic. When the curriculum in arithmetic in the elementary schools focuses on meaningful teaching and learning and is resourcefully interrelated with practical life needs and situations, children will attain higher achievement in learning and in applying the language of quantitative thinking and mental computation.

The present chapter directed the attention of school administrators and teachers to the qualitative difference in the psychological development of children when curriculum and instruction motivate and nourish, rather than neglect, the learning of important meanings and mental operations involved in arithmetic. Children who are to develop competence in applied arithmetic must receive instruction and must experience work-study situations that enable them to develop a psychological system consistent with the structure and operations of elementary mathematics.

Evaluation of progress in arithmetic, the chapter then made clear, should be a cooperative diagnosis by children and teachers of the former's developing understanding and skill in functional arithmetic. Evaluation serves its educational purpose when its findings assist teachers in improving instruction and motivate children to make continued improvement in the learning and use of one of man's most valuable subjects—arithmetic.

Discussion Questions and Suggested Activities

1. Share with others in the group some of the techniques and methods you have found helpful in making elementary school mathematics meaningful to children.
2. Describe or make some teaching aids that can be used at various grade levels to clarify concepts in mathematics for children.
3. Obtain copies of one or more standardized tests used at the intermediate and/or junior high school level. Test yourselves individually or as a group. Analyze your own scores and ascertain whether your personal understanding of problems and processes suggests a need for further study on your part.
4. Review some of the more widely used textbooks in elementary arithmetic. Evaluate these books with respect to their probable success in developing meanings as children use them. What are some ways in which you, as the teacher, might make the textual material even more comprehensible to the children by the way you present it?

Selected and Annotated Readings

1. Brueckner, Leo J., and F. E. Grossnickle, *Making Arithmetic Meaningful*. Philadelphia: John C. Winston Co., 1953.

   An important contribution to the "meanings approach" in arithmetic.
2. Harding, Lowry W., *Arithmetic for Child Development*. Dubuque, Iowa: Wm. C. Brown Co., 1957.

   A helpful and insightful presentation of a developmental approach to arithmetic, with excellent practical suggestions.
3. McSwain, E. T., and Ralph Cook, *Understanding and Teaching Arithmetic in the Elementary School*. New York: Henry Holt & Co., 1958.

   A thorough and practical approach to meaningful mathematics teaching. Includes important material on methods as well as theory.
4. National Council of Teachers of Mathematics, *The Learning of Mathematics: Its Theory and Practice*. Washington, D.C.: The Council, 1953.

   The Twenty-first Yearbook of the Council, this is a well-documented and scholarly review of ways in which the human mind acquires and uses mathematical knowledge.

5. National Society for the Study of Education, Forty-fifth Yearbook, Part I, *The Measurement of Understanding,* 1946, and the Fiftieth Yearbook, Part II, *The Teaching of Arithmetic,* 1951. Both volumes published by the University of Chicago Press.

   Two volumes, prepared by distinguished educators, that have retained their importance for students in the field of elementary arithmetic.

6. Spencer, P. L., and Marguerite Brydegaard, *Building Mathematical Concepts in the Elementary School.* New York: Henry Holt & Co., 1952.

   A "how-to-do-it" approach to elementary school arithmetic. A valuable reference and desk book for teachers.

7. Wheat, Harry G., *How to Teach Arithmetic.* Evanston, Ill.: Row, Peterson & Co., 1957.

   Helpful and comprehensive basic treatment of the field of arithmetic.

11

Educational Values and the Social Studies

LIKE Antaeus in the ancient Greek legend, America has drawn much of its strength from the soil—the natural resources that have helped to make it great. Children must be educated to appreciate and to husband this material heritage so that *their* children will have an equally good opportunity for a high standard of living. But even more of America's strength lies in the people themselves, who have built up the nation to its present position in the society of nations.

The social studies are concerned with the material and social heritages of mankind, their present status and future potentialities. The facts of geography are vital to an understanding of the present age. History holds many keys to the past and the future. The good social studies program in the elementary school, however, embodies more than the development of desirable factual concepts. It reaches into the realm of helping children become socially literate citizens. Chapter 11 is written in an effort to appraise the nature of learning experiences that promise to help children become worthy members of society.

The chapter first reviews a basic issue facing those who are seeking to improve the social studies curriculum in elementary schools: the question of whether the program should place greater stress on content or upon the development of desired social attitudes. An examination of this issue provides background for a subsequent appraisal of current practices in the social studies and for concise suggestions as to how this area can be improved through evaluation. The chapter concludes with a discussion of the measurement of pupil progress in the social studies.

■ A Basic Issue: Knowledge *versus* Social Development

Whenever parents and teachers give serious thought to ways and means of appraising and strengthening the social studies curriculum, they are likely to encounter a basic value conflict. This arises from the question: "What is the basic purpose of the social studies in elementary education?"

THE CULTURAL HERITAGE *VS.* HUMAN DEVELOPMENT THROUGH SOCIAL EDUCATION. Many people feel that the social studies should be interpreted as that part of the elementary curriculum concerned predominantly with geography and history. Such persons argue that each child has as his birthright a knowledge of the cultural heritage and suggest that providing this information is the school's main job. One proponent of teaching the fundamentals remarked that professional educators discussing the social studies say "that instead of teaching a child history or geography, you should teach him how to act when he goes out on a date. . . ."[1] Similar criticisms of any departure from a content-centered approach to the social sciences are abundant.

The entire controversy centering around "knowledge" *versus* "social education" as a primary goal of the social studies needs to be examined by the evaluator before much progress can be made in curriculum improvement.

THE CULTURAL-HERITAGE POSITION. During the past century, history, geography, and similar social-science fields, the progenitors of the present social studies in the curriculum, were taught as separate subjects. The tradition of the subject-centered cultural heritage approach in America is a long one. The first United States history text was published while the Founding Fathers were still at work on the Constitution; geography teaching was well established by 1820, and civics a decade later, as shown by textbooks in this field that date from 1830 or earlier. Through the years the stated aims and objectives in these subjects changed appreciably. From the 1880's to the late 1920's, there was a movement from emphasis on mental-discipline-and-knowledge goals to citizenship goals, but concentration on the cultural heritage as an end in itself never waned appreciably.

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[1] "We Are Less Educated than 50 Years Ago," *U. S. News & World Report* (Nov. 30, 1956), p. 69.

In recent years, the schism over the purpose of teaching the social studies has become discernible. This is apparent in the conflicting definitions of the social studies that various writers or groups have advanced. The following interpretations of the social studies show the influence of the cultural-heritage tradition and a regard for content as a major end in itself. One authoritative source states that the social *sciences* are "those bodies of scholarly materials which deal with human relationships," and that the social *studies* are "those portions of the social sciences which have been selected for instructional purposes." Geography, history, sociology, economics, and civics are singled out as "the social studies most frequently taught in the schools."[2]

Writers concerned with the social studies at the secondary school level are especially likely to stress subject content, although the same generalization frequently applies to those writing about elementary education. In a book dealing with the high school program, Quillen and Hanna say that the term *social studies* "has come to be used for describing such subjects [as history, civics, and geography] at the public school level."[3] Alexander and Saylor,[4] as another example, cite the various subjects around which social studies often revolve and include a total of 27 in their list. In fairness, it must be added that these writers are describing rather than advocating school practices that stress subjects to the exclusion of human values.

Turning to writings at the elementary school level, one finds that reference is often made primarily to content in identifying the social studies. Wesley and Adams[5] speak of school *subjects* that deal with human relationships when they define this area and recognize the prevailing influence of the cultural heritage. While he does not attempt a specific definition, Preston states that "the term may be used to describe the content of history and geography when offered as two separate and distinct subjects. . . ." Subsequently, he urges an effort on the part of teachers "to unify social studies as much as possible,"[6] probably in recognition of the fact that many schools continue to teach history and geography without regard to the natural relationships existing between them.

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[2] Walter S. Monroe, ed. "Social Studies," *Encyclopedia of Educational Research* (New York: The Macmillan Co., 1950), p. 1214.

[3] I. James Quillen and Lavone A. Hanna, *Education for Social Competence* (Chicago: Scott, Foresman & Co., 1948), p. 16.

[4] William M. Alexander and J. Galen Saylor, *Secondary Education* (New York: Rinehart & Co., 1950), pp. 236-237.

[5] Edgar B. Wesley and Mary A. Adams, *Teaching Social Studies in Elementary Schools* (Boston: D. C. Heath & Co., 1946), p. 17.

In terms of values to be sought with children—values such as those suggested in Chapter 2—there is reason to question the stress placed upon, or the more-or-less passive acceptance of, the social studies as subjects that are *merely* concerned with the cultural heritage. It seems to be an unfortunately easy and comfortable solution to the question of what the social studies should contribute to elementary school living to judge them only by the success with which teachers pass along knowledge of persons, places, and events.

THE TREND TOWARD SOCIAL EDUCATION. The nature of the schism that is developing with regard to the cultural heritage *versus* social education is reflected in other current writings seeking to characterize the social studies. Representing growing acceptance of this field as a means to social education—the development of socially adequate personalities in children—is a publication of the National Council for the Social Studies, a department of the National Education Association. In *Social Education of Young Children,*[7] a number of educators joined together to advocate using experiences not primarily to transmit logically organized information to children but to promote social adjustment, to increase social literacy, and to analyze and improve social behavior. A large portion of the book deals with ways in which the content of the social studies can be used creatively to change the psychological behavior of children. In the area of human relationships, for instance, public school workers describe on-the-job experiences they have shared with children. Sample items include: "World-minded Eight-Year-Olds," "Understanding Brings Happiness," "A Playlet Stressing Intercultural Relationships," "An Adopted School."[8]

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[6] Ralph C. Preston, *Teaching Social Studies in the Elementary School* (New York: Rinehart & Co., 1950), p. 4.

[7] Mary Willcockson, ed., *Social Education of Young Children.* Curriculum Series, No. 4, rev. ed., National Council for the Social Studies (Washington, D. C.: The Council, 1956).

[8] *Ibid.*, pp. 71-80. (The "adopted school" refers to one in which underprivileged children received books, art supplies, clothes, etc., from youngsters in a more economically favored school.)

Such emphases are far removed, indeed, from proposals made by the National Education Association a generation ago, when elementary schools were urged to teach history, biography, and mythology in the early years of public education.

When serious consideration is given to the employment of rich, varied, and flexible subject matter as a means of guiding human development toward social maturity (with first consideration going to social education rather than to logically organized content), a perplexing problem immediately arises. What shall constitute the social studies area in elementary education? If it is not described and organized in terms of content, does it lose identity in the curriculum? Not necessarily. One value to be sought in elementary education is the acquisition of attitudes and abilities that make the child of use to himself and to society. *Social education does not imply the graduation of poorly informed children who have interacted with one another for six or more years in a cultural vacuum. Fundamentally, the problem is using subject matter functionally, and even more fully than when it is taught for its own sake.*

The Association for Childhood Education International deftly approached the question of whether or not the social education approach would annihilate the social studies as an area in a Service Bulletin prepared by that organization. The Association recognized that *all* education is concerned with the development of social maturity in the young, but that the social studies constitute the area in which the most *direct* effort is made to create greater social insight and to effect socially desirable changes in behavior. The Bulletin read in part:

> Social studies have to do with people: how people solve their problems in satisfying their physical needs for food, clothing and shelter; how, too, they solve their problems of getting along together in little and big groups; what happens when, in solving their problems, interests clash; and how, as Thorndike said many years ago in stating the aim of education, the way can be found "To make men want the right things, and to make them better able to control all the forces of nature and themselves that they can satisfy their wants." It would be a grave error to minimize with children the complexity of such problems. . . .[9]

Interpreted in this way, the social studies, it may be inferred, are not subjects but experiences selected with children and employing subject matter particularly suited to the improvement of group living: building faith in one another, skill in human relationships, and factual knowledge upon which to base one's interaction with others. This factual knowledge should include: (1) an understanding of conditions in one's own community and the trends that are modifying them; (2) growth toward awareness of the interdependence of communities, states, and nations; and (3) an increasing awareness of the goals toward which individuals must work to serve the general welfare in a democracy.

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[9] Agnes Snyder, "What Are the Social Studies?" in Frances Mayfarth, ed., *Social Studies for Children,* Bulletin of the Association for Childhood Education (Washington, D. C.: The Association, 1944), p. 5.

Of great importance in the process is the quality of the teacher–child and child–child relationships that are developed and refined during the years children spend in school. Children need to live during this period in such ways as will provide firsthand, personal experience and practice in "getting along together in little and big groups." When this is accomplished successfully, important steps will have been taken to make these children's future lives secure and successful and to bring desired citizenship goals closer to living reality.

The movement toward utilizing the content of the social studies to educate children socially is by no means a stampede. Converts are a minority group and are encountering—and will continue to encounter—severe opposition from individuals and groups favoring a formal education for citizenship, particularly through chronologically organized history-teaching. A pertinent example is afforded by an article in a widely circulated magazine that begins: "Every American today is a participant in a war in which ideas and words are weapons, and in which our entire heritage of freedom is at stake. If we Americans wish to remain Americans we must know our American history—the story of the birth, development, and maturing of this nation."[10] The author then assails the failure of the colleges to require more students to study history. Doubtless he would be at least as concerned about the shortcomings of an informal approach to teaching history in elementary schools.

The real issue is not content (for example, in history) *versus* no content, but the question of how children can best be led to respect, understand, and, if necessary, defend the "heritage of freedom" to which reference is made in the above quotation. When insightful loyalty to and understanding of democracy as a way of living are being learned effectively, then social education will truly become a potent force in our schools.

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[10] Henry J. Taylor, "What Our Colleges Don't Require," *Reader's Digest* (September, 1950), p. 56.

SOCIAL EDUCATION COMES OF AGE. There is reason for optimism regarding the process of "coming of age" in the social studies. In 1950, the Working Committee on Citizenship of the National Council for the Social Studies, a department of the National Education Association, submitted tentative criteria for good citizenship to 300 leaders in many fields of American life. The results were compiled in a statement characterizing the good citizen[11] and are reproduced in Appendix B. Real evidence of maturity, of the schools' determination to provide a social education through the social studies, is found in these 24 criteria for the good citizen. They are of particular interest to the evaluator because each criterion is translated into behaviors and beliefs that can serve as a basis for studying children, in the process of gauging the success of the school in building a good program for the social studies area. The values of so influential a group as the membership of the National Council for the Social Studies, as reflected in their pronouncement, bode well for the future, particularly since these values are a synthesis of the convictions of many influential citizens as well.

Additional reason for genuine confidence in the increasing use of the social studies in bettering group living is clearly shown in the programs of a growing minority of schools trying to provide the means to a desirable social education. The next section should serve to document this statement.

▪ An Appraisal of Current Practices and Theory in the Social Studies

At the present time, a relatively clear consensus exists as to the content of the social studies through the second- or third-grade level. Beginning with grade 4, the content of the social studies is more highly varied.[12] Practices are not only diverse with respect to content but also with respect to purposes and methods of instruction, from one school district to another.

WHAT ARE OUR SCHOOLS TEACHING? In general, at the primary level the social studies program is informal and tends to stress social education appreciably more than content *per se*. At the kindergarten level, and often at the first-grade level, little can be identified as pre-established scope and sequence to the program. Children learn more fully the meaning of living in a social environment at the kindergarten level, and increasingly in the early grades there are certain units or projects that become discernible.

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[11] "Are You a Good Citizen?" The NEA *Journal*, 39:612-614 (November, 1950).

[12] For a description of variations, see Loretta E. Klee, ed., "Illustrative Programs in the Social Studies in the Middle Grades," Part III in *Social Studies for Older Children* (Washington, D. C.: National Council for the Social Studies, January, 1953), pp. 62-95.

Social education in the kindergarten often revolves around learning more about the family and school—how the family travels, the work that mothers and fathers do, increased understanding of vacations, holidays, and special events, celebration of birthdays, school helpers, and simple health and safety observations. Heed also is given to developing good interpersonal relationships, mutual respect, sharing, and consideration for others.

Grade 1 expands concepts introduced at the five-year-old level: the physical layout of the school, the nature of school materials, simple geographical learnings, such as the location of nearby landmarks, and the uses of local buildings, such as the firehouse, the supermarket, and the post office. Health and safety in the neighborhood, the work of such persons as the policeman, simple civics (local traffic rules, for instance), and traditions reflected in holidays are usual centers of emphasis.

Projects involving the study of food and its distribution, local airports, the farm, and so on give considerable substance to social studies and social education by the time children are in grade 2. Typical concepts to which children are exposed by the time they are seven, say, in a study of food, might include the following:

(1) Food is a basic need of all people and all animals.
(2) There are many people who earn their living and assist us in satisfying our needs by producing and distributing food.
(3) Soil, topography, and climate affect the raising of foods.
(4) Foods are grown, preserved, stored, packaged, distributed, and prepared for eating.
(5) Tools, machines, and improved techniques help man to grow food with less work.
(6) More food can be grown through the cooperation of many people.
(7) Growing food requires constant and careful work.
(8) There are rules concerning weights and measures, sanitation and quality that growers and distributors of food must follow. These

rules are made and enforced by the government to protect the buyers of food from disease, dishonesty, and fraud.

(9) Ways of growing, preparing, and distributing foods have changed as a result of new inventions and ways of living.[13]

By the time they are in third grade, children often study the community in a wider context, including community background ("Our Town in Pioneer Days," for instance) and the development of other communities, both in the past and in the present. Favorite units later in the school year often involve the study of Indian communities, such as the Pueblo or Navajo, or life in a Mexican village. An understanding of the interrelatedness of human life is sought and content learning and social learnings are blended.

In summary, current primary-level practice has frequently been designed to help children learn to live together effectively and also to acquire information, skills, and attitudes based upon the steady widening and deepening of the child's grasp of his world from the home outward to the world at large. Many schools do an exceptionally good job of reconciling content and that important dimension of human development known as *social education* through the experiences provided for primary children.

In grades 4 through 6, there seems to be no really clear-cut central tendency with respect to social studies practices. A plurality, but certainly no majority, of schools probably include in their curricula a study of peoples and countries around the world at the fourth-grade level. American backgrounds, including both geography and history, appear in a substantial majority of fifth-grade programs and Old World backgrounds (from ancient times to early modern times) are frequently reviewed in grade 6. Yet the diversity rather than the similarity of intermediate grade content remains as the most striking feature at these levels.

Research in the form of a national survey by Burress[14] has provided one of the current sources of information with respect to content. His findings are given as a useful summary, but with the reiterated comment that the differences in courses of study are enormous beyond grade 3:

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[13] I. James Quillen, "Objectives for the Lower Elementary School," in Mary Willcockson, ed., *Social Education of Young Children* (Washington, D. C.: National Council for the Social Studies, 1956), p. 26.

[14] Robert N. Burress, "A Desirable Social Studies Curriculum for the Middle Grades" (unpublished doctor's dissertation, The George Peabody College for Teachers, 1951), p. 6 of mimeographed abstract.

Grade 1. Home and school life of the child
Grade 2. Community helpers
Grade 3. Expanding community life—ways of meeting basic needs
Grade 4. Ways of living in many lands (type regions)
Grade 5. Western Hemisphere (emphasis on the United States)
Grade 6. Eastern Hemisphere (emphasis on Europe)

Attitudes toward social education are also varied in the middle grades. Some schools begin to stress the cultural heritage and to make more use of factual materials in textbooks, while others continue to use units or projects, to encourage teacher–pupil planning of content, and to use various books, including texts, as supplements to rather than as the backbone of the curriculum.

A publication of the National Council for the Social Studies[15] performed a helpful service with respect to the highly individualistic middle grade programs by suggesting "three rather general classifications of general practice." The three types are:

> (1) Social studies programs approached through social process, social functions, or persistent problems of living,
>
> (2) Social studies programs approached through developmental tasks or life situations,
>
> (3) Social studies approached through the interweaving of history, geography, the community, and other related meanings.[16]

Regardless of the *approach* advocated, there is in all three of the program types a basic subject-matter kinship, in that somewhere in grades 4 and 5 broad information regarding local, national, and world history, as well as geography, appears. It is the writers' observation, irrespective of the stated design of the curriculum appearing in social studies guides or courses of study, that there usually are greater differences in methods—and perhaps even in the content—*within* many school systems than *among* them. That is, some teachers emphasize the subject, while others emphasize the learner's personal development within individual classrooms. Many creative teachers seem to do an effective job of social education within the framework of a formally structured course of study, while formal teaching is done by content-minded teachers, regardless of the extent to which their teaching guides or curriculum bulletins encourage flexibility and emergent planning of pupils' experiences.

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[15] Loretta F. Klee, ed., *op. cit.*, p. 62.
[16] *Ibid.*

CURRENT PRACTICES OF PROMISE IN THE SOCIAL STUDIES: PUBLIC SCHOOL CURRICULUM MATERIALS. Despite the difficulty of characterizing social studies programs in the country as a whole, we would do wrong to infer that lack of uniformity suggests either chaos or poor instruction. Actually, the conclusion to be drawn is that the experiences of children in acquiring a knowledge of the cultural heritage—and the quality of their social education—are better because of the way in which public schools are successfully developing programs that are unique to a specific community.

After all, it must be borne in mind that desirable citizenship values of the sort identified in Chapter 2 (see pp. 36-46) are best achieved as each school district finds its own creative channels to their attainment. Similarly, the variables affecting curriculum development, as described in Chapter 7 (see pp. 172-175), can result only in what at first seems a paradox: the fact that consistency in good practice demands diversity. In other words, since each school has a unique environment, each school in order consistently to achieve the best possible social studies program must consistently differ, in some ways, from others.

As a result we find such differences in proposed content as in the divergent study-guide suggestions from two Western cities:[17]

SAN FRANCISCO	SEATTLE
Grade 4: California. (Our state today and earlier communities in our state.)	*Grade 4:* Living in Seattle and the Pacific Northwest. (Relations between people and environment, and between past and present.)
Grade 5: The United States—Contrasts of Community Living. (Contrasts of living in former communities and in today's communities.)	*Grade 5:* Men and Women Who Have Helped Build Our Country. (Interwoven history and biography.)
Grade 6: The World Today—Man's Needs and Resources.	*Grade 6:* Living in the Americas. (History and geography of the hemisphere.)

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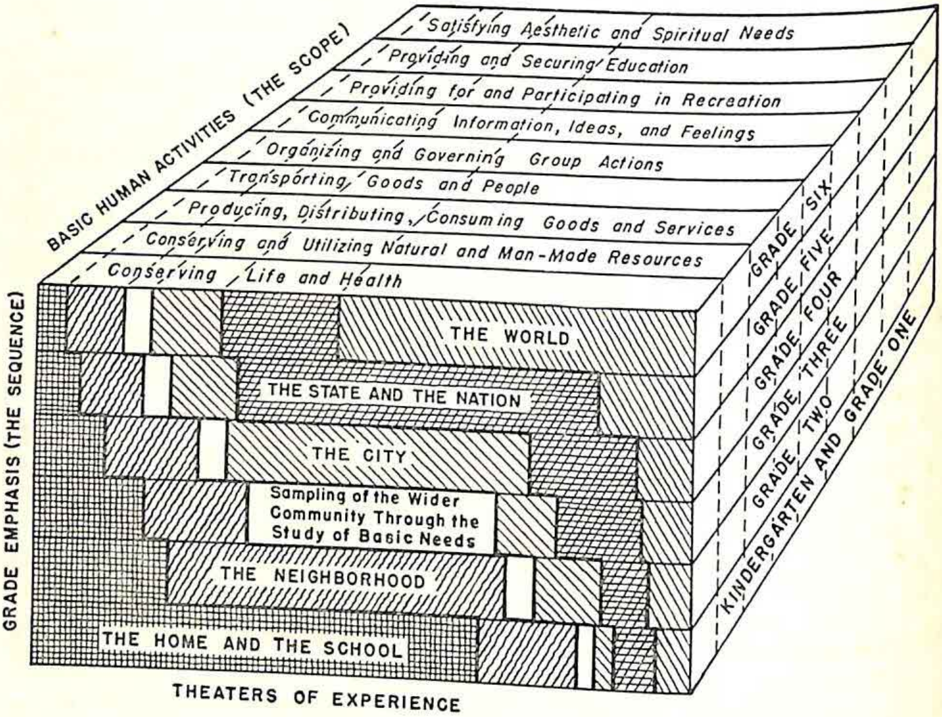
[17] For more detailed accounts of these and other programs, see *Social Studies for Older Children, op. cit.*, pp. 63-95.

The social studies program conceived and developed in Philadelphia is of special interest because of the ingenious way in which the scope and sequence of the program were diagrammed by the planning committee. (See Figure 11:1.) Here we find that "BASIC HUMAN ACTIVITIES," such as "Conserving of life and health," determine scope, that grade emphases on various areas of "THEATERS OF EXPERIENCE" determine sequence, and that both are carefully interrelated from the kindergarten through grade 6.

Figure 11:1. Diagrammatic Presentation of the Interrelatedness of Scope and Sequence in a Guide to Social Studies in the Elementary School as Developed in Philadelphia *


BASIC HUMAN ACTIVITIES (THE SCOPE)
Satisfying Aesthetic and Spiritual Needs
Providing and Securing Education
Providing for and Participating in Recreation
Communicating Information, Ideas, and Feelings
Organizing and Governing Group Actions
Transporting Goods and People
Producing, Distributing, Consuming Goods and Services
Conserving and Utilizing Natural and Man-Made Resources
Conserving Life and Health
GRADE EMPHASIS (THE SEQUENCE)
THE WORLD
THE STATE AND THE NATION
THE CITY
Sampling of the Wider Community Through the Study of Basic Needs
THE NEIGHBORHOOD
THE HOME AND THE SCHOOL
THEATERS OF EXPERIENCE
GRADE SIX
GRADE FIVE
GRADE FOUR
GRADE THREE
GRADE TWO
KINDERGARTEN AND GRADE ONE

Both scope and sequence are given added meaning by the interpretation charts that were prepared to accompany the diagram.

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* From *Toward Social Competence* (Philadelphia: The Curriculum Office, Philadelphia Public Schools, 1950), p. 6.

CHART 1. SCOPE: THE AREAS TO BE INVESTIGATED

The Basic Social Processes	*Examples of Each Process*	*Illustrative Everyday Experiences of Elementary School Pupils*
1. Conserving Life and Health	Safety campaigns Police departments Health Laws and regulations Medical research	Contributing to the March of Dimes and the Red Cross Receiving a physical examination Buying and using Christmas Seals Participating in fire drills
2. Conserving and Utilizing Natural and Man-made Resources	City Planning Forestry service Fire protection National and state parks	Observing Fire Prevention Week Saving in school banks Caring for clothing, books, toys, etc. Participating in clean-up, fix-up, paint-up campaigns
3. Producing, Distributing and Consuming Goods, and Rendering Services	Factories, farms, mines Delivery services Beauty shops Restaurants	Getting a haircut Building a bird house Delivering newspapers Being a "Safety"
4. Transporting Goods and People	Automobile Airplane Boats, ships Trolley cars Busses	Riding to school Moving to a new home Delivering groceries in a wagon Going by bus to the museum
5. Communicating Information, Ideas, and Feelings	Newspapers Radio and television Theaters Telephone and telegraph	Reading a book Making a report in class Listening to the radio Going to the movies
6. Organizing and Governing Group Actions	Elections Court trials Traffic laws Income tax	Electing class officers Sending delegates to Student Council Getting a license for a dog Visiting a court
7. Providing for and Participating in Recreation	Baseball, football, and basketball games Hobbies Theaters and moving pictures Crossword puzzles	Building an airplane Enjoying a moving picture Going on a picnic Reading the "funnies" Taking a trip

CHART 1. SCOPE: THE AREAS TO BE INVESTIGATED—CONTINUED

The Basic Social Processes	*Examples of Each Process*	*Illustrative Everyday Experiences of Elementary School Pupils*
8. Providing and Securing an Education	Schools Libraries, museums, art galleries Books and magazines Radio and television programs	Attending school Visiting the Commercial Museum Using the Free Library Listening to a lecture
9. Satisfying Esthetic and Spiritual Needs	City Planning Books and magazines Concerts, art exhibits Churches, synagogues	Decorating the classroom Making a poster Singing and dancing Going to church

CHART 2. SEQUENCE: THE ORDER OF THE EXPERIENCES

Grade	*Theater of Experience*
Kindergarten and Grade 1	*The Home and the School* At this stage, the chief interest is in the home and family, and school is the big, new, important thing. Experiences related to home and school life have the fullest meaning for children at this level.
Grade 2	*The Neighborhood* More freedom is now given to the child. He meets new friends; he goes to the store; he tours the neighborhood. Experiences with neighborhood activities create new interests.
Grade 3	*The Wider Community* Wisely selected experiences will extend the horizon of the child from the immediate environment to the larger community. He becomes aware of the basic needs of food, clothing, and shelter, and becomes interested in how society endeavors to meet them. The idea of interdependence is broadened and made more meaningful.
Grade 4	*The City* The child sees the city as a unit. He learns about its government, its industries, and its services. Although the present is emphasized, Philadelphia in Colonial times is also studied to foster an understand-

CHART 2. SEQUENCE: THE ORDER OF THE EXPERIENCES—CONTINUED

Grade	*Theater of Experience*
	ing and appreciation of present-day conditions. This is the strategic spot for a study of city planning in Philadelphia.
Grade 5	*The State and the Nation* Through a study of state and nation, children learn how human activities were carried on in the past and how they are conducted in the present. They learn to realize and respect the foresight, courage, and endurance of our pioneer forefathers, and to appreciate their material and spiritual contributions. Present-day problems are also studied.
Grade 6	*The World* The concept of "One World" will emerge as the child learns that people everywhere have the same basic needs and engage in the same basic social processes. The cultural gifts of world neighbors will be appreciated, and our dependence on other nations and peoples will be recognized.

One of the particularly striking characteristics of the Philadelphia social studies guide is the way in which creative approaches to units in the social studies are encouraged. These recommended procedures include identifying objectives, organizing a unit through teacher–pupil planning, developing the project, bringing it to a conclusion through such culminating activities as assembly programs or exhibits, and cooperative teacher–pupil evaluation of the unit.

Other promising practices that have been developed are numerous. A handbook prepared for the elementary schools of Minneapolis[18] is representative of current thought in another of the country's larger school systems. (It is significant that over 100 staff members served on the advisory and production committees.) Instead of prescribing specific subject learnings, the handbook deals with what *might* be done in the social studies at each grade level to make learning meaningful. It begins with an introductory section that presents ways to accelerate desired changes in children's behavior, and which are advocated for the classroom teacher's guidance. Approximately

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[18] *Living and Learning in the Elementary Schools* (Minneapolis: The Minneapolis Public Schools, 1949).

30 social education proposals are made, of which the following are typical excerpts:[19]

BETTER HUMAN RELATIONS

Reading, discussing, and writing reactions to books about common human problems.

Dramatizing incidents in the lives of others. Taking part in class plays or in the children's theater; or preparing radio programs which illustrate phases of human relations.

Taking part in Junior Red Cross activities. Exchanging class letters as albums with children of other regions or countries. Writing letters to pen pals. Making gifts for children of other countries, as well as the aged or hospitalized in our community—all with appropriate feeling.

Learning the games and folk dances of other peoples. . . .

LEADERSHIP

To be a good leader. Let the child with special ability help other children to find their places in the group. . . .

To serve. Help the child to make others comfortable within the group. . . .

To recognize the contributions of others. Help him recognize many different kinds of abilities. . . .

WHOLESOME BOY–GIRL RELATIONSHIPS

Teasing among boys and girls. Realize that teasing is often a form of attention-getting. . . .

Competition between boys and girls. Eliminate competition between them in such activities as paper sales. . . .

ACCEPTANCE OF OTHERS

When cliques form on the playground. Plan games for the entire group. Help each child to participate in a group. . . .

APPRECIATION OF CULTURAL DIFFERENCES

All people share the same basic needs. . . .

All useful work is worthy of respect. Let children observe the workers of the community and the people who serve it. . . .

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[19] *Ibid.*, pp. 25-30.

Old age is part of the life cycle. Help children understand senescence; accept the peculiarities of aged grandparents or neighbors; be considerate of them and find ways to help them; share treats with them, or remember them on holidays. . . .

American citizens must be world-minded. Help children understand how the modern world grows smaller with each successive invention in transportation and communication. Help them recognize differences created by environment. . . .

These interesting expressions of value are generally similar to views expressed in curriculum publications from state departments of education and from larger and smaller cities. Suburban Glencoe, Illinois, considers the social studies "to mean all the experiences and activities that are of concern to people as they attempt to live together more and more effectively."[20] The curriculum booklet from which this is quoted then presents, through examples of children's work, the schools' efforts to improve group living.

Winnetka, Illinois, for years a curriculum pioneer, in its *Curriculum Handbook: Elementary Science and Social Studies*[21] concentrates on the developmental characteristics of children of elementary school age in the first 60 pages of a detailed presentation of ideas for significant experiences for children, and emphasizes the great variety of possible experiences that can serve to foster physical, social, intellectual, and emotional growth. This is a marked departure from the carefully organized Winnetka curriculum design of earlier years, which prescribed required subject content (for example, Indian study in grade 2, the Greeks and Romans in grade 5) through the use of individual study records commonly known as *goal cards*.

A large number of additional materials from public school curriculum laboratories, committee reports, and courses of study confirm the gradual shift of emphasis from *subjects* to the *use of subject matter* as it contributes to social education of the young.

STATE DEPARTMENTS OF EDUCATION CURRICULUM MATERIALS. It is not unusual to find a few public schools anticipating desirable curriculum trends in handbooks and in statements of educational values. However, when a substantial minority of state departments of education begins to direct recommendations for curriculum practices toward social education through the social studies, the importance of the movement cannot be dismissed lightly as atypical or inconsequential. The writers recently examined a number of state department materials published since 1945.[22] In state after state there was, to some extent, official recognition of the need to improve human relations through the social studies.

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[20] Glencoe Board of Education, *A Guide to Social Education* (Glencoe, Ill.: The Glencoe Public Schools, 1944), p. 7.

[21] Louise Mohr, ed., *Curriculum Handbook: Elementary Science and Social Studies* (Winnetka, Ill.: The Winnetka Educational Press, 1947), see pp. 1-61.

Ohio's *Elementary School Standards: 1949* is fairly typical of the bulletins available, being neither so liberal nor so conservative as some of the publications from other states. As to the social studies, the *Standards* state in part:

> Learning takes place in a community, a culture, an era. The "field" has in our times so changed that we are in danger of preparing a child for the world that has passed. We must clarify our thinking and help children in their discovery of basic understandings that will give meaning and direction to our century. . . .
>
> Through group work [in the social studies], each child participates in the give and take of school life and comes to realize his part in active participation in a democratic society. Evaluation in terms of pupil behavior are [sic] an essential part of the teaching plan. Facts are needed to rationalize attitudes and behavior but facts alone cannot create either. Three themes—interdependence, expanding democracy, and the need for integrity and morality in personal, national, and international life—should permeate the entire teaching plan.[23]

VALUES MIRRORED IN EVALUATION INSTRUMENTS. Current evaluation instruments discussed earlier (see Chapter 6) are yet another source of evidence of educational thinking in the social studies. As one would anticipate, groups of public school workers who have examined their values and what they imply for practice in the classroom have tended to conclude that the social studies are to be conceived as a means of building social literacy. This is well illustrated by the detailed evaluation instrument prepared in Texas under the direction of Wilson and Otto. Five columns of print describing elementary school practices are a characteristic feature of their device,

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[22] In a collection of state bulletins or handbooks from 31 states, 14 publications (either directly or indirectly) evinced awareness of social education through the social studies: Ohio, Michigan, Illinois, Virginia, New York, Texas, California, Arkansas, Utah, Arizona, Maryland, Kansas, North Carolina, and Indiana.

[23] R. M. Garrison, ed., *Ohio Elementary School Standards: 1949* (Columbus: The State Department of Public Instruction, 1949), pp. 114-115.

"each column representing a different level or degree of agreement between present practices and the best educational thought of today."[24]

As regards the social studies, Wilson and Otto recognize the range of practice shown on the facing page. The effectiveness of the program is deemed to improve as the school evaluated moves from left to right on the continuum from Level I through Level V. The social studies are identified with social living for purposes of evaluation and are interpreted thus:

> The social living phase of the school program includes instruction in the social studies and the utilization of other school situations and activities which have potentialities for the enhancement of children's social education. The objectives focus upon effective, skillful, intelligent, cooperative participation in identifying and dealing with the problems of one's self and of the group in an evolving democratic culture in its world setting.[25]

Since the Texas *Handbook* was a cooperatively developed venture, it represents not the ideas of Wilson and Otto alone but the pooled thinking of the school workers who participated in the project. This gives it an even greater significance as an indication of promising efforts to appraise social education through the social studies.

The *Elementary Evaluative Criteria,*[26] another important appraisal device, which was developed cooperatively under the sponsorship of the Southern Association's Cooperative Study in Elementary Education, is further proof that the concept of social education is gaining ground. The *Elementary Evaluative Criteria* takes a "one-piece" approach to the elementary program, with checklists that concern themselves with human development through the whole school program.[27] In this approach, separate fields of subject matter are not identified for separate study but only as they contribute to broadly conceived social maturity.

A number of other instruments share the general viewpoint of the two sources described above. One such important device is the *Ohio Teaching Record,*[28] an anecdotal record form to be used with teachers by competent observers seeking to help them improve their instruction. The *Record* contains a section dealing with the function of subject matter that suggests by implication that content is of value only insofar as it helps children along the road toward a high level of social development. The persons who prepared the *Record* included the following leading questions:[30]

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[24] Edgar E. Wilson and Henry J. Otto, eds., *Handbook for Self-appraisal and Improvement of Elementary Schools,* rev. ed., Bulletin of the Texas State Department of Education (Austin, Texas: The Texas Education Agency, 1948).

[25] *Ibid.,* p. 28.

[26] South-Wide Workshop on Elementary Education, *Elementary Evaluative Criteria,* 2 vols., Executive Committee of The Southern Association's Cooperative Study in Elementary Education (Nashville: George Peabody College for Teachers, 1949).

[27] *Ibid.,* Vol. II, pp. 29-68.

[28] College of Education, The Ohio State University, *Ohio Teaching Record,* 2d. rev. ed. (Columbus, Ohio: The Ohio State University Press, 1945).

PART II. WHAT WAS THE FUNCTION OF THE SUBJECT MATTER?

Sec. 1. *Were the Materials of Instruction Themselves the Important Thing?* What was the place of the textbook, course of study, page by page assignments, facts, rules, formulas, memorizing "correct" answers, authorities, etc.?

Sec. 2. *Was the Subject Matter Used to Promote Pupil Thinking?* What was done to develop inferences, hypotheses, generalizations, applications of principles, larger problems, distinctions between facts and assumptions, recognition of errors in logic and definition, awareness of complexity of cause and effect relations, realization of limitations and shortcomings of rules and principles, sensitivity to propaganda, comparison of authorities, and the habit of openmindedeness and suspended judgment, etc.?

Sec. 3. *Was the Subject Matter Used to Promote Pupil Planning?* What was done to lead pupils to set up their own goals, to plan ways of reaching them, to anticipate consequences, to note conflicts and inconsistencies, to see relationships, to utilize many resources, to try a variety of ways of solving problems, to be alert to difficulties, to relate current activities to "big ideas" or larger purposes, to realize that a "plan" is a flexible guide and not a fixed way of doing something, to develop self-discipline, etc.?

Sec. 4. *Was the Subject Matter Used to Promote Valuing?* How were controversial issues discussed? How were pupils given opportunities to make important choices, to see what they "really believe," to express likes and dislikes, to ask questions they desired to discuss? How were they led to be sensitive to new problems, helped to realize that ends and means or processes and results cannot be separated? How were they helped to clarify their beliefs about war and peace, religion, economic relationships, esthetic standards, social inequalities, minority groups, Bill of Rights, science and scientific methods, labor and industry, conservation of resources, etc.?

Sec. 5. *Was the Subject Matter Used to Promote Greater Personal Effectiveness?* Skill in using materials, tools, machines; wise use of goods and services; occupational experience and information; familiarity with economic problems and procedures; reading, writing, or number skills; effective oral expression; expanded interests, etc.

Sec. 6. *Were Pupil Beliefs, Convictions, Comments, Questions, and Activities Treated as Subject Matter?* Were they related to other values or generalizations, used to suggest other illustrations? Did the teacher treat them with dignity and utilize them in the teaching-learning process?

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[30] *Ibid.*, p. 10.

The concept of the role of content in social education, implied above, points to a program of studies increasingly recognized for their importance in creating better group living for children, so that they will ultimately be desirable adult citizens.

A GRAPHIC APPROACH TO CURRICULUM DESIGNING IN THE SOCIAL STUDIES. No résumé of current practice and theory in the social studies is adequate without mention of the synthesis of objectives, scope, and sequence of the program as proposed by Paul R. Hanna, who for years has been recognized for his leadership in this field. Hanna[31] has pointed out that curriculum planning in the social studies is a process with at least two stages: (1) some aspects of the curriculum must be carefully designed in advance, and (2) others are best planned just before or during an educative experience. That is to say, the faculty designs the program's over-all scope and sequence and the flexible framework for each grade, while the immediate choice and direction of experiences stem from joint teacher–pupil planning.

On the basis of these reasonable and practical views on curriculum design, Hanna proceeds to suggest that curriculum planning, including that done in the social studies, may logically involve the following steps, both of which seem consistent with the evaluative approach: (1) The staff accepts responsibility for determining the general objectives of education in a given community and stating them in behavioral terms. (2) The staff decides the scope—the breadth and depth of content—or *what* shall be in the curriculum. (3) The staff decides on the sequence of content from year to year, or *when* certain learnings shall be shared with children. (Emphasis on *staff decisions*, of course, does not preclude cooperative planning, which involves a degree of lay participation, in reaching decisions regarding scope and sequence.)

A particularly helpful contribution from Hanna is his graphic approach to what shall be in the curriculum and when. As shown in Figure 11:2, he has selected eight[32] basic human activities as a foun-

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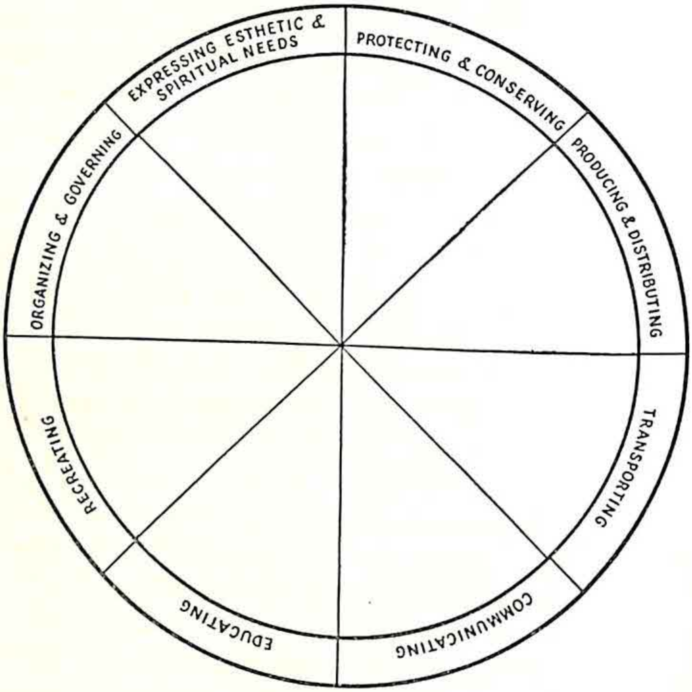
[31] A succinct presentation of Professor Hanna's views is given in his "Society—Child—Curriculum" in C. W. Hunnicutt, ed., *Education 2000* A.D. (Syracuse: The Syracuse University Press, 1956).

[32] In a 1956 article, Dr. Hanna added a ninth activity, "creating and producing tools and technics." See "Social Studies for Today," The *NEA Journal*, 45:36-39 (January, 1956).

Figure 11:2. Categories of Basic Human Activities: The Wheel of Life *



dation for the scope of the curriculum: organizing and governing, expressing esthetic and spiritual needs, protecting and conserving, producing and distributing, transporting, communicating, educating, and recreating.

Sequence, Professor Hanna proposes, can be sketched in general terms by recognizing 11 expanding, concentric communities of men that extend from No. 1, "the family community," through No. 11, "the world as the home of mankind." These are diagrammed in Figure 11:3. In Hanna's words:

> The world of the child obviously represents the widening horizons which he experiences as he grows up. The world for the baby is the area surrounding his crib, and the population of that world is his family. Later, his world becomes the family house and yard, and the population of this world is the family and all who service and visit the home. Still later, the world becomes the urban block or the rural township in which the home is located; its population naturally increases to include the neighbors. After the child bursts the bounds of the block or the township, his world begins to

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* From Paul R. Hanna, "Society—Child—Curriculum," in *Education 2000* A.D., *op. cit.*, p. 12. (Reproduced by permission of the author.)

Figure 11:3. Expanding Communities of Men: Emphasis for Grade Allocation *

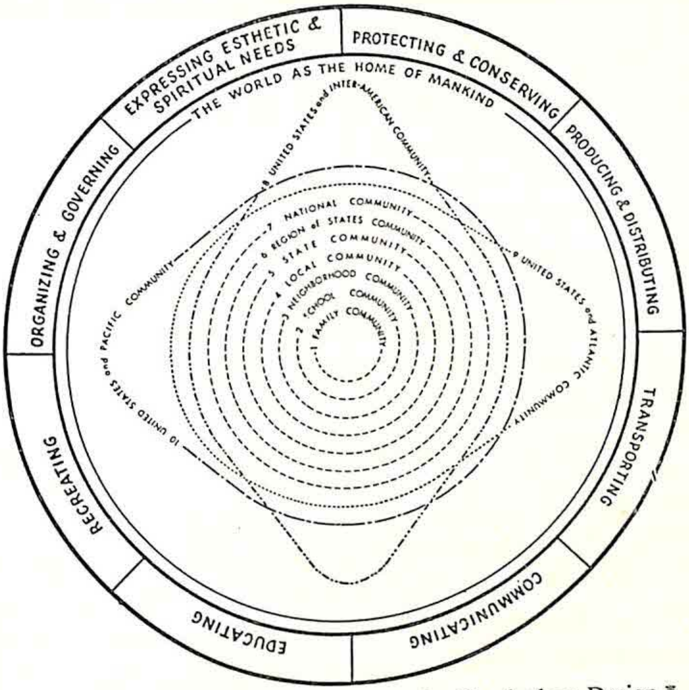
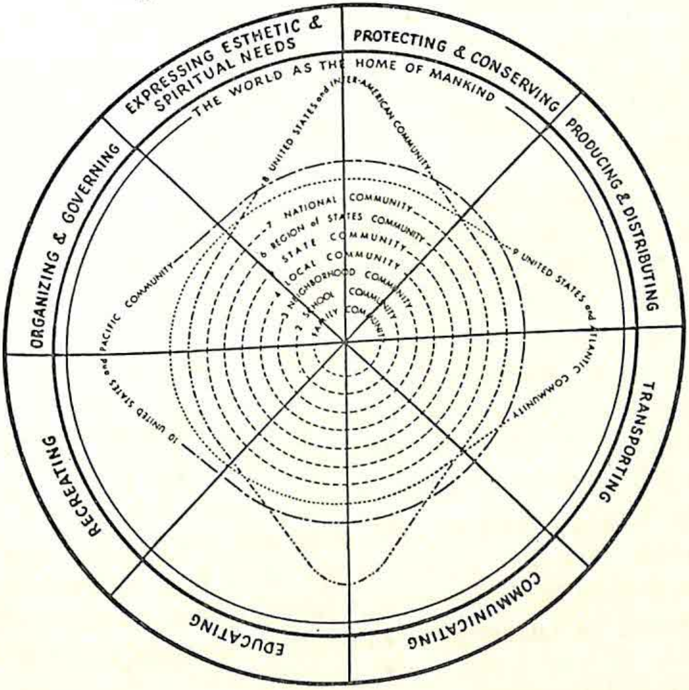


Figure 11:4. A Social Studies Curriculum Design *



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* From Paul R. Hanna, "Society—Child—Curriculum," in *Education 2000* A.D., *op. cit.*, p. 14, 17. (Reproduced by permission of the author.)

> expand rapidly as he comes into contact with more people living in larger and larger arenas. . . .
>
> This is the way a child's communities grow. . . .[33]

The coordination of scope and sequence is suggested by Figure 11:4, which combines Figures 11:2 and 11:3. Each of the eight basic human activities thus becomes embedded in the 11 communities, and vice versa. Hanna's visual devices for suggesting a general approach to both scope and sequence have particular merit because they show recognition of the need for a coherent approach to the cultural heritage, yet they permit the individual teacher to place a strong emphasis upon social education within the broad framework of content. To cite Hanna once again:

> It is our belief that pupils who are guided during their elementary school [years] into such a scope and sequence of social-studies experiences as here presented will emerge as young citizens possessing the significant understanding and ability required for participating in social, economic, and political activities in the expanding communities of men.[34]

The Hanna proposals, an excellent blend of theory and common sense, represent the kind of creative thinking that suggests how teachers can more effectively apply their values to the reconciliation of the long-standing yet needless and artificial conflict between the cultural-heritage approach and the human-development or social-education approach to the social studies. *Both* content and total personal development must be recognized as of equal importance and as completely interdependent.

SOME DEFICIENCIES IN SCHOOL PRACTICE IN THE SOCIAL STUDIES. While materials such as those discussed in the preceding section encourage one to believe that the social studies are contributing more fully to the socially desirable purposes of education, it would be highly misleading to leave the impression that deficiencies in the teaching of the social studies will largely disappear in the next decade. They will diminish only to the extent that alert teachers work to *make* them disappear. In all probability, for every teacher who is succeeding in his efforts to help children acquire a social education, there are two or three others who are somewhat less than effective. A variety of difficulties have in the past conspired to keep classroom practice from contributing to the learning of ideas, values, understandings, and skills essential in successful democratic citizenship. Most of these difficulties still persist: (1) The issue of *teaching* the cultural heritage *versus using* it for social education should already be apparent.

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[33] *Ibid.*, pp. 13-15.

[34] Hanna, "Social Studies for Today," *op. cit.*, p. 38.

(2) A second deficiency is the tendency to teach too much too soon. Children are often exposed to studies that their past experience cannot absorb. Although boys and girls may learn to verbalize about the geography of unfamiliar lands, past and present, and strange peoples, misinformation and faulty concepts will quite possibly outcause teachers themselves are culturally deficient when they teach number accurate concepts.

(3) Too many stereotypes have been acquired by children beabout places remote to their own experience. Ask a group of adults what they associate with Holland. Almost invariably, "wooden shoes," "windmills," and "tulips" are among the first responses—items that are decidedly not the most significant aspects of Dutch culture. Required courses in college history, geography, civics, and similar social sciences in teacher education are not, in themselves, an answer to this problem. Most student teachers take such courses anyway, and many states already require them for certification. If an answer is to be found, it lies with teachers who believe in the importance of their work so strongly that they are motivated to acquire accurate information that can be shared with children as is appropriate.

(4) Trying to help children to learn too much too fast is a fourth shortcoming of many elementary school programs. This is closely akin to the stereotype problem. Even the most capable teacher, if forced to "cover ground" with a class, can do little more than pass along an indifferently organized smattering of information.

(5) A dependence on texts and/or logically organized courses of study that inhibit creative teaching often accompanies this fourth deficiency.

(6) When geography and history are taught separately, the problem becomes even more severe, creating a deficiency in the programs of those schools that take such an approach to social studies instruction.

■ Improving the Social Studies through Evaluation

The concluding portion of this chapter is concerned with demonstrating how evaluation can improve the social studies. In treating this topic, the authors have kept in mind the several deficiencies handicapping more effective social education, and placed emphasis on steps that might be taken by the majority of schools rather than upon ideas that would prove applicable only in schools blessed with small classes, ample material resources, and similar advantages.

VALUES TO BE SOUGHT THROUGH SOCIAL EDUCATION. "Values to be sought with children" was the topic of an entire chapter (Chapter 2) earlier in this book. The values proposed were general in nature. Subsequently, when the writers described the use of evaluative procedures (see pp. 61-67), these values were expressed as criteria for guiding practices in the classroom and school. Dozens of behaviors and/or attitudes were listed as representing the kind of reactions that a school staff might choose to seek with boys and girls.

Values to be attained through the social studies, which will lead to desired changes in social behavior, are inseparable from the general values already presented. It is the privilege and the responsibility of every school staff to shape and adapt value-goals to fit the unique environment for learning in the specific school district by which the staff members are employed. Suggestions made earlier by the writers may be accepted piecemeal; lists developed by scholarly societies and school systems may be adapted or adopted; but the best way to clarify values is to evolve them in a particular school.

A condensed list of values evolved by many schools and stated as objectives has been compiled through research among recent curriculum statements and worded in terms of purposes for children. It is reproduced below to show a composite of current trends of thought. School workers can develop value-goals that are even more pertinent to their own situations:

(1) To respect the rights and opinions of others;
(2) To be skillful in securing, sifting, evaluating, organizing, and presenting information;
(3) To assume social and civic responsibility;
(4) To act in accord with democratic principles and values;
(5) To become a judicious consumer;
(6) To understand principal economic, social, and political problems;
(7) To learn about vocational activities and opportunities;
(8) To understand the interdependence of peoples and groups;
(9) To become a happy member of a home;
(10) To make intelligent adjustment to change;
(11) To get along with individuals and groups;

(12) To use basic social studies skills;
(13) To exercise critical judgment;
(14) To understand and promote social progress.[35]

Although not included in the list cited, two additional values to be sought that appear in many curriculum bulletins are:

(15) to use basic work-study skills in the social studies;
(16) to develop an understanding interest in and appreciation of the values in American democracy.

Once the local staff engaged in appraising the social studies program has decided upon its values and stated them in terms of children's behavior, the program of evaluation becomes concerned with collating and studying critically three elements: (1) behaviors to be sought with children, (2) the school environment, and (3) principles of child growth and development. If these prove to be compatible, the remaining task in an appraisal of the social studies is the all-important one of guiding continuous progress toward the value-goals through children's experiences.

WHAT SHALL BE THE NATURE OF THE SOCIAL STUDIES CURRICULUM? The more commonplace approaches to the selections of content for the social studies simply do not work out well when values and behavior changes to be sought guide the teacher. Typical procedures include: (1) the textbook approach, in which a book is adopted and followed, its contents becoming the social studies program; (2) the course of study approach, in which work is prescribed by the administration or by appointed curriculum committees; (3) units or projects preplanned carefully by the teacher and developed with children; (4) departmentalized programs, in which children spend 30 minutes or more daily in a social studies room.

Variations of these schemes are numerous, and several may be found in the same school. All share in common a tendency to work against creative teaching. Texts and courses of study, if followed slavishly, focus children's attention on the subject at hand, often to the detriment of social learnings. Work planned in advance by the teacher robs children of the values of participation in planning. Departmental programs tend to break school life into unrelated pieces and to impede teacher guidance of related learnings in relationship.

Fused, correlated, core, and broad-fields approaches to the curriculum are potentially more liberal, but they rarely give full play to the pursuit of desired values because of the tendency to prescribe what shall be done within their frameworks. Educational anarchy, with everyone on the staff "riding off in a different direction at the same time," seems to have little promise either. What, then, is a reasonable, practical answer to the problem of teaching flexibly and creatively?

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[35] Walter S. Monroe, *op. cit.*, p. 1219.

Perhaps a solution is suggested by one of the inherent characteristics of evaluation. This concept or application of evaluation, suggested earlier, was that "All persons involved in examining and improving behavior participate in evaluation." If it be granted that it is possible for a professional staff to work closely on curriculum development and to participate consistently in all-school appraisal, then there is reason to believe that it is possible to have an emergent program, which cooperative planning and evaluation have made closly knit and coherent yet at the same time flexible and creative.

The following specific procedure is advanced with regard to selecting social studies content, as a workable means to achieve social values while retaining the necessary organizational framework needed by the units of the public educational system. It is not a dogmatic proposal, since it is presented as an *example* rather than as a *pattern.*

USING EVALUATIVE PROCEDURES TO DETERMINE LOCAL SOCIAL STUDIES CONTENT. In general, the evaluative steps below follow the procedure used in examining and improving any curriculum area. The procedure presupposes, of course, that school workers have studied and are reasonably familiar with conditions and trends in contemporary society—local, state, national, and international.

(1) The first step consists in sensing and understanding the problem to be studied. What is the nature of the present social studies program? What are its shortcomings?

(2) The staff then examines its values to determine whether or not they are generally understood and mutually acceptable.

(3) When agreement is reached regarding values to be sought, the values are expressed as objectives and reworded to serve as criteria for judging the effectiveness of the program.

(4) These criteria are then translated into behavioral terms. The way in which this might be done was illustrated in Chapter 5, where lists of desired behaviors were presented. Take, for example, such a criterion as "The child respects the rights and opinions of others." This suggests such behavior as "listening

thoughtfully to the opinion of others," "abiding by majority decisions," "safeguarding the property of other children," and similar observable actions or reactions. The translation of criteria into behaviors to be sought is of crucial importance. It is at this point that the *real* values and beliefs of teachers are tested. Are they honestly convinced that they are helping children to become desirable human beings by using experiences with subject matter to build maturity in interpersonal relationships, or are they disguising the school's continued emphasis on subjects, taught for their own sake, by creating a smoke screen of words? Do the teachers understand that their behavior, too, must be changed in many instances so that it is illustrative of the kinds of behavior desired in children?

(5) The fifth step is the first one to bear directly on changing practices in the social studies, since it is concerned with establishing learning situations in which behavior can be studied while the teacher seeks to modify it to conform to the objectives or citizenship outcomes which the school has accepted. As an integral part of this important step, the school staff experiments with various plans for improved instructional practices that will promote the desired outcomes.

(6) This step, as the reader should recall, is concerned with the use of all available instruments (anecdotal records, sociometic devices, tests, etc.) to gather data on the extent to which behavior is changed.

(7) The seventh step deals with the analysis of these changes in behavior in order to determine whether or not values in social education are being attained.

(8) Finally, further modification of the program as suggested by the findings should be considered.

AN EXAMPLE OF APPLIED EVALUATION IN THE SOCIAL STUDIES. A concrete example may help to make more understandable the fifth step, which concerns initial program modification. One school system employing the procedures described set up a series of meetings during which values were discussed, expressed as criteria, and rephrased so that they were described in terms of behavior sought in children. When the teachers came to the fifth step involving curriculum changes, the staff broke up into smaller groups and met temporarily by grade levels. At these meetings the teachers of grade 3, for example, discussed the ways in which learning experiences could be planned more deliberately to change behavior at the eight-year-old level.

It quickly became apparent that no one set of experiences would be suitable for all eight third-grade classrooms in the school system. This was a conclusion with which teachers at all other levels concurred with regard to their groups. After much deliberation, the staff set itself the task of compiling lists of many different enterprises which might prove useful if developed with six- or nine- or eleven-year-olds. First, a unifying or characterizing theme was developed and accepted for each grade level. ("Going Places and Doing Things" was, for instance, proposed as a label to characterize experiences for six-year-olds.) The eventual outcome was a sizable handbook suggesting some 300 possible enterprises that might be undertaken by children and teachers of the kindergarten through grade 8 in that specific community. These were described, *not in terms of content* but in terms of available resources (films, books, field trips, persons in the community, etc.) that could contribute to enriched learning, if children and teacher happened to have reason to plan a group experience similar to one of the 300 suggested. It was understood clearly that the enterprises in the handbook were not a formal curriculum outline.

Further evidence that the staff was aware that the breadth and relatedness of possible learnings far exceeded the 300 ideas for specific undertakings was reflected in a section introducing the proposals for content that would change children's behavior in desired ways. The classroom teacher editing the handbook wrote as follows:

SOME IMPORTANT ELEMENTS IN SCHOOL LIVING

During the year past we have been concerned seriously with the problems surrounding curriculum change in elementary science and the social studies.

From "what" to "how"

It seems logical to think of our recent study as concerned with *what* are good experiences for children. The year ahead may be considered as one during which emphasis also is placed on *how* to create an even higher quality of school living than has been achieved in the past. The following paragraphs summarize certain elements which are deemed good in an educational program for children. It is assumed that children should live through certain experiences during *every* typical school day. Other experiences, on the average, frequently ought to be a part of school living. Still others ought to come along at some point during the school year.

The points made apply to the first six grades, but they are in many ways applicable to the junior high school as well.

A good school day . . .

It is suggested that teachers occasionally appraise their daily programs in terms of some of the points made below, to see if they are including these out of many wholesome things that might well be included every day:

for children

(1) *Play and rest.* The good day embodies a rhythm of play and rest, so that children have a chance to enjoy school living through play experiences, with overstimulation kept to a minimum through regularly provided rest.

(2) *Planning, sharing and participating.* Each day should be marked by opportunities to plan things together. Perhaps one of the greatest deficiencies in most modern schools is the tendency to give children too little opportunity to have a real voice in the planning of experiences developed in the social studies, science, or any other field. Children can plan. They seem incapable of it, sometimes, only because they have had too little opportunity. Through this planning much growth in initiative, clear thinking, and ability to participate in a democracy ensues.

(3) *Activities.* The role of meaningful activities in modern schools often has been so clouded by foggy thinking as to lose all meaning. Essentially it refers to the fact that children better understand those things which they do, rather than merely talk about. Specifically, children understand more fully a story, post office, weather bureau or similar item if they have constructed one of their own in the classroom. Merely reading about them is insufficient.

(4) *Stimulating functional learning.* Every child should learn daily something which helps him to function more effectively in his environment. Functional learning depends upon work with a purpose. Children should know why they are doing certain things, why certain experiences (including certain kinds of drill) are essential, so that they sense their importance and realize why such experiences are necessary for them.

(5) *Interests.* Enterprises must stand the acid test of capturing and holding children's interest. As interest wanes educational value decreases. In carrying forward enterprises, it is well to check daily, to make sure that the development of an enterprise sustains interest which merits its continuation.

(6) *Responsibilities.* Opportunities to accept and successfully perform some responsibilities might well be a part

of everyday living. Simple duties, care of equipment, increasing self-control in social situations—these are but a few of the ways in which responsibilities assumed serve as an important part of childhood education.

(7) *Evaluation.* Nearly every day it is important for children to have a chance to appraise what they are doing, to decide what is good about a given project and what might be improved.

(8) *Individualization.* The daily program should be based upon continuing recognition of the fact that children differ tremendously in their needs, abilities, interests, and purposes.

(9) *Contacts with good literature.* Some contact with good literature in stories read by teachers or by children is vitally important.

(10) *Creative experience.* Creative experiences, ones through which children find and test new meanings of life and living, are offered as yet another requisite of living a satisfactory day.

What makes a good week . . .

Generally speaking, there are several elements which should be a part of every good week in addition, of course, to those mentioned above. Dramatic play as well as creative dramatics come under this heading as does opportunity to work with large types of construction. In view of our emphasis upon elementary science, it is well to think of science experiences, too, as something which we hope to make a part of each week we spend in school with children.

. . . in school?

Sharing experiences among the rooms of a school comes under this same category. Simple assembly programs, such as group sings, are desirable. Even the simplest sharing in a social situation meets important needs.

Note the awareness here that a well-rounded social education goes beyond the limits of formal content and the insight of the staff into social studies as a means to the development of maturity.

In the example given, there is a practical synthesis of the best thinking of a professional teaching corps, together with cooperative agreement based on the staff's judgment as to how certain bodies of subject matter might lend themselves to useful learnings. Proposed learnings were neither planless, on the one hand, nor frozen along prescribed lines, on the other. Rather, shared thinking by the teachers pointed to intelligent practices with which to experiment in improving behavior. This approach seems to promise, for a large number of public schools, an answer to the question of how to avoid "educational anarchy" in the school and, at the same time, avoid uniformly prescribed curriculum experiences.

Instruments and Techniques for Evaluating Pupil Progress in Social Studies and Social Living

It is peculiarly difficult to discuss the use of evaluation in the social studies because of the fact that a knowledge of subject matter and of a child's effectiveness in social living—generally *both*—must be gauged. Also there are certain collateral skills, for instance, language and study skills that enter the picture (map-reading, use of library materials, ability to obtain information from a dictionary or reference book).

Before any measurement of the social studies program can be made, there must be a clarification of the goals and objectives that the school seeks through this program. If the school merely is concerned with teaching subject matter, then achievement tests and performance tests (to show skill, as in map-reading) often are deemed sufficient by the staff. When, on the other hand, the school accepts as its goal the guidance of children in the ways of effective social living, of which subject-matter content is but one component, then evaluation of pupil growth and progress becomes, to all intents and purposes, as broad as the socializing experiences of each individual boy and girl.

In order to grapple with the twofold nature of evaluation in the social studies, objective-type measures of information, skills, and understandings are considered first. Then attention is directed toward appraisal of the important but less tangible qualities of social behavior in the process of change.

MEASURES OF KNOWLEDGE AND SKILL. Unlike the fields of reading or arithmetic, content in the social studies is so varied at the intermediate grade levels (when achievement tests begin to become available) that the appraisal of subject matter is difficult to approach. Obviously, when fourth-grade children in one town learn about "Living in a Tropical Rain Forest" and those in another community study "Living in the Pacific Northwest" at the same grade level, it is almost impossible to find a basis for preparing any standardized type of testing instrument.

TEACHER-MADE TESTS. Because commercially prepared tests of information are so often unrelated to what children are learning in the social studies, teacher-made tests are of especial importance. Multiple choice, short-answer, or other types of completion tests that are based on the program for a particular group of children are often the best solution in determining what information the children have acquired. Several points need to be kept in mind by the teacher who prepares his own tests:

(1) Various types of questions should be used (for example, multiple-choice and short essay).

(2) The language used in phrasing questions should be chosen so as to avoid giving children who read well an advantage over those who read below grade level.

(3) Over a period of time, both information *and* study skills should be appraised. (A study skill is such an item as interpreting a map, chart, or graph.)

(4) Attention should be given to the physical appearance of the tests: clean copies, spacing of test items, etc.

(5) As a general rule, tests should be prepared in advance and the items carefully edited, rather than written "off the top of the teacher's head" while he is walking from his desk to the chalkboard.

(6) Children should be prepared for the testing by introducing them to simple information tests that illustrate test procedures before longer tests are administered.

(7) Children should also be prepared psychologically for the test experience so that they are not frightened or confused. The test should be viewed as a help to them, rather than as a threat to goad them to memorize information.

(8) The tests should be based on previous meaningful experience.

(9) Questions involving memorization of exact information are of doubtful value when such questions require rote or mechanical repetition. Rather than expect a fifth-grade child to commit dates to memory, one can ask, "Which of these events came first? (*a*) Signing of the Declaration of Independence, (*b*) The French and Indian Wars, (*c*) The Winter at Valley Forge, (*d*) Washington's first term as President."

Decidedly more fundamental than any of the points above is the matter of the teacher's purposes in preparing teacher-made instruments in the first place. The discussion of the purposes and characteristics of the measurement program, discussed in Chapter 6, should always be kept in mind (see pp. 150-153).

Standardized tests. There is reason to doubt that more than a minority, or at most a small majority, of school systems can use standardized tests in the social studies in the intermediate grades to any useful purpose. In addition to the problem, already noted, of variations in the subject matter studied, there seems to be little, if any, central agreement among teachers as to what is *essential* information as content and as to what is of *enrichment* value or mere collateral facts, even when the same general topics are listed in the curriculum guide for a specific grade. Also, there is scant diagnostic value, either for individual children or for groups of children, in such standardized instruments as are available.

If standardized tests in the social studies are used in grade 6 or below, the results should not necessarily be construed to indicate "good" or "poor" teaching or learning if the scores children make compare favorably or unfavorably with national norms. The children may have a considerable fund of information on which they were not queried by the test items.

For those schools interested in standardized tests, the *Mental Measurements Yearbooks,* edited by Oscar K. Buros, are of great help. These sizable volumes are issued periodically and contain reviews and appraisals of tests of nearly every description, covering all common fields and designed for students at all grade levels.

Representative of interesting types of established tests concerned with the social studies are: the J. Wayne Wrightstone *Tests of Critical Thinking in the Social Studies,* grades 4-6 (Bureau of Publications, Teachers College, Columbia University), and *The Ohio Thinking Check-up,* grades 4-6 (Bureau of Educational Research, The Ohio State University).

Three standardized subject-matter tests representative of available commercial instruments are: (1) the Townsend *Cooperative Social Studies Test,* grades 7-9 (Educational Testing Service), (2) Thrall's *Fourth Grade Geography Test* (McKnight & McKnight), and (3) the Adams and Sexson *California Tests in Social and Related Sciences,* grades 4-8 (California Test Bureau).

MEASURING SOCIAL DEVELOPMENT AND MATURITY. The social education of children involves a second major area of learning that needs to be evaluated when a teacher or faculty undertakes the study of outcomes and curriculum improvement in the social studies. Essentially, the appraisal of pupil progress toward increasingly adequate levels of social development and maturity extends far beyond the confines of classes or periods devoted to content material conventionally associated with the social studies. The close identification of the evaluation of children's social education with the social studies merely resides in the fact that the learning experiences associated with this field often afford uniquely good opportunities for fostering and gauging social growth. It would be a serious mistake, however, to assume that evaluation of such growth was handled appropriately if restricted only to those times of the school day when, for instance, a project dealing with the geography of the Western states or with the Westward Movement was under way.

The real indices to social development are found everywhere: in the classroom before the day's work begins, on the playground, in science and arithmetic, in the cooperative planning of any group endeavor—in short, in the entire fabric of the day teachers spend with children. The means of evaluating social education are identical with the means of studying and guiding human development which were presented at some length in Chapter 6 (see pp. 132-147). The tools are anecdotal records, sociograms, interest inventories, and the various other items reviewed.

The sensitive and creative teacher who ably guides pupil growth in the social studies actually has a dual responsibility in appraisal. He recognizes that each child's increase in knowledge needs to be assayed and that his increasing effectiveness as a human being needs continuous appraisal. Such a twofold responsibility is consistent with the viewpoint expressed earlier in this chapter, namely, that the acquisition of the cultural heritage and a social education are equally important phases of the guidance of boys and girls.

THE COORDINATION OF THE MEASUREMENT OF KNOWLEDGE AND OF SOCIAL DEVELOPMENT. The use of evaluation in the social studies field carries with it a new concept of gauging children's progress. If the school is not concerned with teaching subjects alone but with the social maturation of each child, then conventional achievement tests are, by themselves, inadequate measures of progress.

It follows that the development of children must be evaluated in part by devices or means that show changes in their behavior: interest inventories, anecdotal records, scales that show changing beliefs and attitudes, and by the competent teacher's continuing study of the individual child's participation, not only in the classroom but in the school council, in the shop, on the playground, and in the community as well. Is he learning to cooperate, to trust others who prove worthy of trust, to rely upon his personal judgments that have been made intelligently? Is he interested, alert, and active? Does he help newcomers to his classroom to feel at ease and to find a place for themselves? How does he *use* the subject matter he is acquiring and organizing within himself? And is he learning as much or more than he would learn through formal instruction in geography or history, because he is in a challenging but demanding school environment with high standards of achievement?

There continues to be a place for achievement tests in evaluating pupil progress, but in a new context. Their purpose is to ascertain whether or not the children are building a stock of factual information upon which to base intelligent thought and action, knowledge that gives substance and perspective to highly organized, complex twentieth-century living. This is vastly different in purpose from testing for knowledge accumulated only for its own sake and from the interpretation that an educated person is the one who "knows the answers," irrespective of the worth of the information in question.

Appraisal of the progress children make toward acquiring a social education is concerned with determining what children are learning and, even more, with the ways in which children use their knowledge in desirable daily living in school, home, and community.

■ Summary

The broad field of social education through the social studies provides particularly complex problems for school staffs planning to use evaluative procedures in the improvement of their work. This is due, in part, to conflicting definitions of the social studies, and to confusion as to how schools may discriminate wisely among the vast areas of human knowledge that might be tapped in enriching children's learnings.

Chapter 11 contended that the social studies are gradually coming to be considered as a means to the improvement of group living through improved human relationships, with subject matter subordinate to this goal. It was suggested that evaluation procedures could aid greatly in the process, and that a growing weight of evidence in curriculum materials and appraisal instruments points to increased and continued movement in that direction in public education.

In the last part of the chapter, consideration was given to the improvement of the social studies through evaluation: how appraisal can guide the staff in clarifying its values, how it can help to develop curriculum content, and how it proposes ways of gauging pupil progress.

Discussion Questions and Suggested Activities

1. In view of the appreciable differences existing among curriculums proposing social studies subject matter, especially for the intermediate grades, discuss and compare content placement in the school systems in which class members are employed.
2. Arrange a class discussion or debate with respect to the role of children's interests in the selection and development of subject matter learnings in the social studies.
3. List some activities (construction work, dramatics, discussions, field trips, etc.) that might help to enrich a social studies unit, project, or experience for the group of children with which you are now working or a class with which you previously have worked.

Selected and Annotated Bibliography

1. Hanna, Lavone A., Gladys L. Potter, and Neva Hagaman, *Unit Teaching in the Elementary School.* New York: Rinehart & Co., 1955.

   Although designed to interpret units of work that cut across subject-matter lines, there is highly useful information related to the social studies in this book. Rich in examples of school practices.

2. Johnson, Earl S., *Theory and Practice in the Social Studies.* New York: The Macmillan Co., 1956.

   Written with scholarship and precision, this is important background reading.

3. Michaelis, John U., *Social Studies for Children in a Democracy,* 2d ed. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1956.

   An overview of the social studies with useful chapters indicating how child development, teaching aids, etc., have a bearing on this field.

4. National Council for the Social Studies, *Curriculum Series.* Washington, D.C.: The Council. (Various dates; see annotation.)

The reference here is to a series of useful and timely materials, published under various editors, in the social studies area. Especially pertinent for elementary teachers are: Mary Willcockson, ed., *Social Education of Young Children* (1956); Loretta Klee, ed., *Social Studies for Older Children* (1952); and Julian C. Aldrich, ed., *Social Studies for Young Adolescents* (1951).

5. Otto, Henry J., *Social Education in Elementary Schools.* New York: Rinehart & Co., 1956.

An excellent and information-packed volume; a full length treatment of ways in which the resources of the elementary school can be marshaled for citizenship education (broadly conceived) not only through the social studies but in the total life of the school.

6. Preston, Ralph, *Teaching Social Studies in the Elementary School,* rev. ed. New York: Rinehart & Co., 1958.

A revision and expansion of a popular volume that offers both tested viewpoints and varied suggestions for social studies experiences.

12

The Scientific Method and the Elementary Science Curriculum

It is the experience of seasoned teachers that few, if any, areas of the curriculum stimulate children's enthusiasm as does elementary school science. This broad appeal has several explanations. For one thing, elementary science is relatively free of stereotyped subject matter. Consequently it is possible for teachers and children to plan experiences creatively. In addition, the natural and physical sciences surround the child with wonders ever new: a sudden storm, ripening corn, a coruscating meteor, mechanical toys, jet planes overhead, city smog, rural sunsets, neon lights reflected on wet pavements—the list is endless. Some of these things are likely to be close to all children regardless of where they live—urban New York, the Idaho Panhandle, or the Mississippi Delta.

Because the manifestations of science abound, they are invariably a part of children's immediate surroundings. Students of learning have long recognized that the environment near at hand is the most important source of meaningful concepts for children. This further supports the place of science in elementary education. Finally, there is the potent appeal of natural phenomena to human curiosity—a curiosity that is bright, unspoiled, and eager in childhood.

Science in the Elementary School Program

A UNIQUE VALUE OF ELEMENTARY SCIENCE. In addition to its magnetic attraction for children, the field of elementary science has an important and unique quality that provides a vital value-ingredient in elementary education. This contribution is the building of a desirable way of thinking and acting and the creation of scientific attitudes in children.

To understand this peculiar value of properly guided elementary science experiences, one must recognize the dual nature of science: (1) it is widely conceived as a body of formulated and systematized knowledge; (2) it is less commonly recognized as a *theory* of knowledge, a method of inquiry by which man reaches warranted conclusions regarding the nature of the world about him and means of controlling it to serve man's purposes. The unique worth of elementary science resides in the second aspect of its nature.

Childs has accurately characterized this aspect in his statement that "When we undertake to introduce a child to science, we undertake to introduce him not simply to certain aspects of organized knowledge, but, above all, to a controlled method of human inquiry."[1] He goes on to point out that the method of science, when adequately developed in the school, should deliberately commit the child to consider the world about him with a mind closed both to wishful thinking and to the antiscientific pressure of dogmatic authority, whether it be military, hereditary, ecclesiastical, or political.

Science, by discarding authority (except for the authority inherent in the process of scientific inquiry) as an ultimate test of values, makes a unique contribution to a vigorous democracy. By its emphasis upon facts, experimentation, and action based on evidence, science suggests classroom procedures that encourage reflective thinking and inquiry necessary to social health. This is significant in terms of the values to be sought through public education. The writers have proposed that a typical criterion for an effective elementary program might well be "The school shall seek to provide children with experiences in sensing and attacking problems, appropriate to their age and maturity, so that their actions are based on creative thinking, on enlightened self-interest, and on a scientific approach to problem solving."[2]

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[1] John L. Childs, "The Morality of Science and the Values of Democracy," *Science Education*, 33:263 (October, 1949).

[2] See p. 111.

The values reflected in this criterion more frequently can be attained through elementary science experiences than through any others in the curriculum. It is, then, in the building of desirable processes of thought and desirable attitudes in children that elementary science is uniquely valuable.

Great concern has been expressed lest science teaching in the United States fail to meet the challenges of scientific and technological progress in countries overseas, such as Russia.[3] Certainly there is a continuing need to examine and to improve what our schools are teaching. However, the goal of developing informed technicians, research workers, and theoretical scientists should not be permitted to assume such proportions as to make elementary school workers lose sight of the value of science as a means to free the minds of men.

ELEMENTARY SCIENCE OUTSTRIPS ITS EARLY HANDICAPS. The concept of science as a way of life, as a basis for thought and action free of superstition and prejudice, is a relatively recent one in elementary education. A number of handicaps had to be overcome in science programs before this area could function to promote human development. Some of the more pronounced problems were: (1) the early tendency to teach elementary school science as diluted high school or college-level content; (2) an approach to science as nature study, which was marked by unsound personification and sentimentality and dealt with figments of the imagination—Jack Frost, Mr. North Wind, or Our Feathered Friends; (3) the use of science primarily for supplementary reading—verbal, abstract, and nonexperimental; and (4) an insecurity on the part of teachers who avoided science experiences because of their lack of adequate preparation. Each of these handicaps can be illustrated by an examination of books written 50 and more years ago,[4] and all of them persist in some classrooms, even at the present time.

Science has escaped more serious mistreatment due to these handicaps partly, at least, because it was not included in the curriculum of many elementary schools until recently. Now there is increasing recognition of the unusual potential contribution of science studies to children's development and a corresponding opportunity to attain socially desirable values in the classroom by making use of it wisely.

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[3] For a description of Russian educational programs including science, see *Education in the U.S.S.R.* (Washington, D. C.: U. S. Department of Health, Education, and Welfare, 1957), p. 67 *ff.*

[4] See John M. Coulter, John G. Coulter, and Alice Jean Patterson, *Practical Nature Study* (New York: D. Appleton & Co., 1909), as an example of the diluted college-content approach to "grade school nature study." The St. Louis Public School Course of Study, *ca.* 1870, is another example. Nature sentimentality is pronounced even yet in certain science books for children: for example, Helen Dean Fish, *When the Root Children Wake Up* (Philadelphia: J. B. Lippincott Co., 1941). Lammers, to whom reference is made shortly, found how scant the science background of elementary teachers is likely to be. See page 307.

▪ An Appraisal of Current Practices in Elementary Science Teaching

In current practice, work in elementary school science tends to fall into one or more of six categories, especially in grades 1 through 6. Each is separately described, then appraised in company with the other five in terms of educational values that seem philosophically and scientifically sound.

INCIDENTAL SCIENCE CONVERSATIONS. In schools giving little or no heed to the developmental values of elementary science, teachers occasionally "take time out" to discuss some scientific topic, for instance, the eruption of a volcano, a violent local storm, or a newspaper account of a new invention. Such occurrences are usually rare, unplanned, purely verbal, and seldom followed up. They may be characterized as incidental science conversations.

SPONTANEOUS SCIENCE EXPERIENCES. Often spontaneous science learnings are stimulated by a dramatic and meaningful happening in the children's immediate environment: a bottle of milk freezes and forces up its paper cap; a tree is split by lightning on the school playground; a newt is found crawling under a back porch and carefully brought to school imprisoned in a cardboard box with holes punched in the lid. Frequently such happenings lead to simple classroom experimentation (for example, with the phenomena of freezing, evaporation, air pressure) that lasts for several days or even longer. Usually such happenings prompt discussion, planning, and a variety of follow-up experiences. While spontaneous science work, by its very nature, cannot be planned in advance, it may lead to creatively planned investigations by a group of children if the teacher recognizes and encourages these developmentally desirable activities. This approach differs from incidental science work in that it is followed up and usually involves experimenting to find out why a certain phenomenon occurred.

SCIENCE AS READING LESSONS. An increasing number of the attractively illustrated, carefully written "science series" type of texts has been published in recent years. Some teachers use these books as supplementary readers, developing a restricted science program in the process. When texts are adopted arbitrarily by an administrative official, in the hope that they will foster more science work, the books are likely to be used for reading lessons rather than as a means of awakening interest in science. This questionable outcome becomes even more probable when books are purchased and handed over to teachers without in-service preparation. Experimentation, planning, and discovering are all kept to a minimum when reading skills are emphasized for their own sake.

THE COURSE OF STUDY. Some school systems have prepared formal courses of study in elementary science, or they have adopted study outlines prepared by publishers and geared to a specific set of textbooks. The variety and scope of these courses of study in science deserve careful study. Some consist of a few paragraphs proposing experiments that are carefully explained and illustrated.

One promising variation is the handbook approach, in which the course of study is not definitely prescribed. Instead, a large number of learnings are suggested without regard to grade level, and help is given to teachers who feel inadequate in science by providing descriptions of materials and experimental procedures that might be used in the classroom. Two good historical examples of this departure from prescribed courses, which may be obtained readily, are *Science Experiences for Elementary Schools,*[5] a guide to experiments prepared by an elementary school science consultant for the Horace Mann Elementary School, and the Ohio State Department of Education handbook, *Science Education for the Elementary Schools of Ohio.*[6]

CORRELATED SCIENCE TEACHING. Science teaching that relates the subject matter and method of science to the content of other fields also is finding a place in the elementary school curriculum. Frequently such correlated work in science grows from an imperative lead originating in another field; sometimes the correlation is planned deliberately and in advance. An example of an imperative lead may be found in a group of Kansas children studying Mexico. A book they were using mentioned the marked differences in Mexico's climate and pointed out how the varied altitudes gave this country a warm sea-level *tierra caliente*, a *tierra templada* or temperate area at higher levels, and a cool *tierra fria* in the high mountains. The interest of the group in the temperature range created by differences in topography suggested to the teacher that it was educationally appropriate to spend some time learning about climate. Over a period of several weeks, both climate and weather phenomena were explored, and a classroom weather bureau was started, complete with simple instruments brought in or made by the children. The weather bureau itself was operated by the group for several months thereafter.

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[5] Charles K. Arey, *Science Experiences for Elementary Schools,* Practical Suggestions for Teaching Series, No. 4 (New York: Bureau of Publications, Teachers College, Columbia University, 1942).

[6] State Department of Education, *Science Education for the Elementary Schools of Ohio,* Curriculum Bulletin No. 3 (Columbus: The State Department of Public Instruction, 1945).

Correlation planned in advance demands that the teacher study a proposed project or enterprise, say, in the social studies, with an eye to ways in which science activities can enrich learning and help children understand the method of science. Here are a few examples of how teachers have related science activities to the social studies in conventional schools:

(1) A group of nine-year-olds studying the Age of Discovery—the familiar voyages of Columbus, da Gama, Magellan, and others—discussed early hazards to travel, superstitions of the era, and early navigation. The teacher proposed that compasses similar to those used many years ago be made by placing magnetized needles on milk bottle caps and floating them in bowls of water. Some other simple work with magnetism ensued after the children made the compasses.

(2) During a regional geography study that touched upon natural resources, the teacher worked with a committee of intermediate level children. Under her guidance they subsequently conducted an experiment to demonstrate how bits of the natural resource coal yielded coke, tar, and inflammable gas when heated in a test tube.

(3) Following a bus trip with her group to the farm, a first-grade teacher borrowed a pair of rabbits from the junior high school and arranged for room committees to take turns in helping to care for the creatures. Later in the term, baby rabbits were a center of attraction, and some concepts regarding reproduction were made more clear to the six-year-olds.

(4) While studying man's development of communication systems with a fifth grade, the teacher planned several related science experiences subsequently developed by committees. These included wiring a buzzer that connected the classroom with an adjacent work-

room, making several simple telegraph sounders and keys, dismantling and examining an obsolete telephone, and assembling a crystal radio set.[7]

The examples cited are by no means novel. They are, rather, chosen as representative of teacher initiative in making use of science activities to show the values in the method of science, to enliven the program, to make learning more vivid, and to promote a limited kind of teacher–pupil planning—that is, planning ways of carrying out appealing ideas originated by the teachers.

It also should be recognized that some teachers help children carry out even broader and richer science correlations that allow children even greater latitude in satisfying science interests and problems.

SCIENCE-CENTERED ENTERPRISES. The last of the six categories arbitrarily chosen to describe science practices is the science-centered procedure. At its best, this involves cooperatively planned work that has as its focus a broad scientific topic. Usually this type of enterprise lasts for a considerable time—often several weeks or more—and subject matter from other fields is taught with regard to its relationship to the science experiences that are planned. Science-centered enterprises also may be largely preplanned by the teacher, but certain process values are lost as a result unless he gives heed to the nature of the community and to children's varied abilities.

Mention has already been made of a classroom weather bureau that developed as the result of an expanding interest in Mexican climatic differences. In a flexible program, it might have become a science-centered enterprise, as actually happened in another school. Some years ago, during heavy winter floods along the Ohio River, it was necessary to dismiss classes for several days. The children were deeply impressed by the event and by newspaper stories and radio broadcasts that dealt with the flood. When school reopened, there was much sharing of experience by the nine- and ten-year-olds in grade 4 during the usual morning conversation period, or "Talking Time" as it was called in the daily program. The teacher quickly became aware of a substantial interest in the weather conditions that had caused the flood, since the children asked many questions which indicated a readiness for further learning. These questions were listed on the blackboard, and the conversation shifted to the matter of how the group might set about the task of discovering:[8]

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[7] Examples given were observed by the writers during visits to public schools in northern Illinois.

What is the difference between sleet and snow?
How can the weather man tell what the weather will be like before it gets here?
What is a weather man?
Why is the weather colder when we go to Canada in the summer?
What is the wind made of?
Does "climate" mean the same as "weather"?
Are the clouds as far away as the moon?
Is there a weather man in our town?

In a day or two the science-centered enterprise of learning about the weather was well launched. Weather instruments from home began to appear in the classroom; others were borrowed from the high school science department. Still others were made by the children, and daily weather forecasts were a natural outcome.

Words often used in connection with weather work appeared in weekly spelling lists; learnings in geography developed as the group became acquainted with weather and climatic conditions in various parts of the world; craft work entered in as simple weather instruments were made (wet- and dry-bulb thermometers, weather vanes, etc.); and artwork representing cloud formations and weather conditions was stimulated. Communicative experiences of various kinds likewise were present and meaningful in the form of daily written weather reports, letters requesting permission to visit the local weather bureau, and extensive reading to locate information. Science learnings were organized for a program that concluded the science-centered enterprise. Children from other classrooms were invited to drop in to hear about the weather bureau; and, in preparing the simple program, the fourth grade had a thoroughly satisfactory review of the subject matter they had explored.

The practices described are likely to overlap in many ways. A spontaneous experience may lead to a science-centered study of six weeks' duration. Science experiences that correlate with or stem from the social studies may, for a part of the time, predominate in the program. Ideally, education should be of one piece. In this sense, science, language, art, arithmetic, and all other fields are of value only as they improve the child's learnings in school. If science is being taught wisely, it may appear in many forms in classrooms and in the school environment, as children actively use its subject matter and method.

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[8] These are actual questions asked by the children. They are taken from a narrative description of a classroom weather bureau in the writers' files.

Several excellent publications that are of value as resources to teachers seeking to develop correlated and science-centered projects have appeared in recent years. The Thirty-second Yearbook of the Department of Elementary School Principals provides a first-rate overview of the total science program. It is entitled *Science for Today's Children.*[9]

Rich in illustrations and practical suggestions is Blough and Campbell's *Making and Using Classroom Science Materials in the Elementary School,* which suggests experiments and activities related in major areas of science experience, such as "Earth and Sky" and "Machines."[10] Yet another type of publication, which adroitly blends theory, research, and practice, is the Association for Supervision and Curriculum Development booklet, *Elementary School Science.*[11]

AN ANALYSIS OF CURRENT ELEMENTARY SCHOOL SCIENCE PRACTICES. The six approaches to science discussed above should be appraised in terms of the changes they create in the behavior of children who are learning to think creatively as they approach problems. Sporadic, incidental science teaching is of limited worth in promoting human development.

Spontaneous, correlated, and science-centered enterprises can make an important contribution to a good year in school. Each can serve a purpose in certain circumstances, since each can help children recognize, clarify, and study problems, base judgment on fact, and use evidence wisely in finding solutions to problems. The form in which science experiences develop should depend upon the particular potentialities that the teacher senses in a learning situation. Criteria for selecting subject matter (see pp. 117-120 and p. 121) help to determine the extent to which a lead from the field of science merits development. Sometimes a brief exploration of a spontaneous interest will suffice; again, an extensive project may be in order.

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[9] The Department of Elementary School Principals, *Science for Today's Children* (Washington, D. C.: The Department, 1953), 311 pp.

[10] Glenn O. Blough and Marjorie H. Campbell, *Making and Using Classroom Science Materials in the Elementary School* (New York: The Dryden Press, 1954), 229 pp.

[11] Maxine Dunfee and Julian Greenlee, *Elementary School Science: Research Theory, and Practice* (Washington, D. C.: The ASCD, 1957), 67 pp.

One may justifiably ask why subject matter other than that of science—the social studies, for example—cannot be utilized to help children meet and solve problems intelligently. The answer is simple: all subject content and instructional methods should be so used. The advantage that is enjoyed by science in the elementary school, however, lies in the way in which it lends itself to sensing and solving problems in the immediate environment of children and in its application of the method of intelligence in the process of human inquiry.

SCIENCE EXPERIENCES AND THE TEACHER. The competence, interests, and attitudes of elementary classroom teachers have a direct bearing on the elementary science program. Is the teacher capable of guiding children in this field? Does he have sufficient insight to recognize a spontaneous science interest or to develop a science-centered experience? Does he have the background and imagination that are required? Unquestionably, many teachers do, but a majority need in-service help, and the field of elementary science requires greater attention in teacher-education programs.

A detailed interview study of classroom teachers pointed up the problem. An appreciable majority of the school workers interviewed in the survey sample felt that satisfying children's curiosity and interpreting their physical environment were the main functions of science, and fewer than one in five sensed any of the importance of the method of science as a basis for more intelligent living. Significantly, nine tenths of the teachers relied upon a nonexperimental type of reading-discussion procedure in teaching science; and, although lack of time and equipment were the main reasons given for the limited amount of work their children did in science, only one out of ten could name a piece of equipment he wanted to buy.[12] Other studies confirm the impression that teachers are reluctant to undertake science work with children because of unfamiliarity with the content and a timidity where creatures, equipment, or chemicals are concerned.

Once prospective or experienced teachers are aware of the values of science, they are almost certain to make increased efforts to help children toward greater maturity through elementary science activities. This outcome cannot be left to chance, however. Both preservice and in-service education programs need to be redirected to create in teachers the conviction that science can be uniquely important to children. They also need help in the form of experience with simple equipment and activities to make them feel secure when handling science materials that they may subsequently use with children.

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[12] Theresa J. Lammers, "One Hundred Interviews with Elementary School Teachers Concerning Science Education," *Science Education*, 33:292-295 (October, 1949).

■ What Do Educational Values Suggest for the Future of Elementary Science?

There is no way of telling how the future will be modified by the rapid rate at which science is changing our current ways of living. It is a certainty, nevertheless, that human resourcefulness in using scientific knowledge and in applying its methods will be of utmost importance. Educational values suggest a number of specific curriculum changes that should help to build this resourcefulness.

For one thing, a suitable science education program should be mandatory for all children. This assumes that the science experiences contemplated be deliberately designed to strengthen the power of children to think critically and to act wisely, to substitute the rational inquiry of science for superstition and prejudice. In this way, elementary science can be a means of helping to develop a value system consistent with desirable educational goals.

The kindergarten, even the nursery school, is not too early a stage at which to begin using the methodology and content of science. Children learn that which they experience, and the world of the four- or five-year-old will make sense to him more quickly as astute nursery and kindergarten teachers make increased use of living and growing things in the young child's environment as a part of early childhood education.

Deliberate education-for-change is another quality to be built in the future through elementary science experiences. Time was when children and adults, too, could find security through gradually coming to understand and adapt to a seemingly stable and predictable culture. Today an adaptability to rapid change, rather than to a glacially shifting *status quo* is one of the assets that the school should help children acquire. Since applied science is contributing so greatly to change, it becomes necessary to know something about this force in human life and to examine the elementary curriculum in order to find ways in which science experiences will help to reassure children that rapid change is normal and that it can be good if properly controlled. This proposal goes beyond mere education for uncertainty. It involves the attempt to change the psychological behavior of each child, so that he will look upon change less as a source of insecurity than as a reassurance that much which is desirable can now be accomplished briefly by persons of initiative, competence, and good will. The authors do not mean to suggest that scientific change has become so dynamic as to make the past and even the present obsolescent. The more rapidly changes occur, the more important it is that the past be understood. There is no other basis for interpreting the present and the future.

A more careful study of child development is also certain to characterize future progress in the field of elementary science. This is inevitable as it begins to touch both more children and younger children. It is equally inevitable that, as science education is analyzed in terms of its contribution to human development, the processes by which children mature will be examined.

Educational values suggest at least two more trends to be accelerated in elementary science. One of these is better teacher education; the other is a movement toward curriculum flexibility that permits greater use of the science-centered type of enterprise. Teachers-in-training need to be helped to understand how to organize consecutive weeks—even months—of work with children which draws upon the content and captures the spirit of science. Public school curriculums should not only permit but should actively encourage the cooperative teacher–pupil planning of such learnings.

■ Instruments, Tests, and Criteria for Appraising Children's Science Experiences

When gauging the quality and outcomes of the elementary science program, the evaluator or the teacher must recognize several concepts that influence appraisal:

(1) Because of the unique value of elementary science as a means of freeing children's minds from prejudice and superstition, many potential values in the program are so intangible as to defy adequate measurement.

(2) Creative work in science follows no set pattern or sequence. Since those schools that *have* a discernible elementary science program often employ flexible teaching methods, it is almost impossible to find standardized tests that are relevant to instruction. For this reason, teacher-made tests are especially important in middle-grade science.

(3) In many respects, the evaluation program in elementary science is remarkably similar to the program of appraisal in the social studies—especially if the social studies and social education goals in a given school are sought through flexible or informal teaching procedures. Indeed, it is not at all unusual to find a project or enterprise (say, in communication or transportation) that so completely blends science and social studies content and the goals of social education that the separate identity of subject content is difficult to define.

In view of these facts, and particularly in view of the third, it seems reasonable to refer the reader concerned with testing in the realm of elementary science to the points already made with respect to the social studies in Chapter 11. The same points dealing with measures of knowledge and skills in the social studies (see pp. 291-292), both with respect to teacher-made and standardized tests, apply, for the most part, to science experiences.

TESTING IN THE FIELD OF SCIENCE. In elementary science, as in the social studies, stress should be placed not only on what the child acquires in the way of information but on his ability to think creatively. Instruments, such as the *Ohio Thinking Check-up*, therefore, are of value. (See p. 293 above.) Insofar as science knowledge is concerned, the teacher is largely limited to tests of his own devising—at least until the middle grades, and generally until the seventh grade and above, when standardized subject-matter tests can be used.

Among upper grade tests available in the last few years are the *California Tests in Social and Related Sciences* for grades 4-8, which are, in part, designed to appraise science knowledge, and the *Calvert Science Information Test* for grades 4-6 and grades 7-9 (two sections). Both instruments are published by the California Test Bureau and include information on topics likely to be taught at the elementary level: simple biological, geological, and physical science items.

The Educational Testing Service has published the *Cooperative Science Test* by J. G. Zimmerman and others for grades 7-9. This more advanced test encompasses not only factual knowledge but also interpretation and comprehension of information. Other widely used standardized achievement tests for use in the upper grades also include sections that deal with elementary science.

CRITERIA FOR GAUGING THE MERIT OF SCIENCE EXPERIENCES. Criteria for a good elementary school science program include such broad points as were already suggested in Chapter 5 for the program as a whole. It is, however, possible to propose additional specific criteria of probable use to a school staff appraising the program in elementary science. (As usual, it is important to reiterate that the best criteria are those that a local staff evolves through discussion. Only then does a staff fully possess and understand them.)

Criteria for gauging the merit of the science program. Here are eleven statements of science values phrased as criteria for gauging the merit of the science program:

(1) Children's science experiences help them to solve problems more effectively.
(2) Children display scientific attitudes, for example, by withholding judgments until facts are available.
(3) Science information is acquired functionally through direct, meaningful experience.
(4) There is evidence that children are aware of the nature of scientific principles and forces in the world about them, and that they can interpret them with growing success.
(5) Children are increasingly capable of distinguishing between fact and fancy.
(6) Children display a growing respect for the opinions of others when they are supported by evidence.
(7) Children show an increasing ability to control and direct their physical and social environment.
(8) Each child is increasingly able to find answers to problems through his own efforts.
(9) Health and safety habits are observed.
(10) The program encourages wholesome use of the imagination in meeting new situations.
(11) Recognition for the individual child is forthcoming in his science work with other children.

By using criteria such as these, teachers evaluating the science program can readily translate them into behaviors and establish situations and prepare simple instruments to determine whether or not elementary science experiences are serving to satisfy the criteria. The main effort in following this process revolves around developing in the program proper situations that foster the kinds of human development to be sought. The world is so full of possible science experiences that the problem is one of planning with children, from among infinite possibilities, the particular enterprises that most fully promise to increase their mental and emotional maturity.

Some suggested learning activities related to elementary science are presented below, in the hope that teachers will find them helpful.

■ Developing Creative Science Experiences with Children

The examples of spontaneous, correlated, and science-centered activities that follow are not proposed as ideas to be used in a curriculum outline. They are given because they are representative of the many kinds of leads-to-learning in science of which teachers need to be aware. Assignment of experiences to specific grade levels, as in the following example, is avoided: One day a nine-year-old came to school with a Cercopia moth and, during sharing time, told about it and asked if the class could learn something about the insect. "No, I'm afraid not," said the teacher. "You've brought a sixth-grade bug into the fourth-grade room."

This story, whether apocryphal or not, portrays the absurdity of trying to limit science learnings to a particular grade level, for children's interests are not so limited. It also illustrates the inhibiting influence that an inflexible course of study may exercise in elementary science. It is impossible to tell in advance exactly what a certain group of children may profit from science experiences; hence, six or eight years of science subject matter cannot be outlined in advance. The teacher's knowledge of when children are ready to learn with understanding is, therefore, especially important in this field.

SOME SPONTANEOUS SCIENCE EXPERIENCES THAT MAY PROMOTE DESIRABLE LEARNINGS. Many sources list the innumerable kinds of science experiences that *might* be developed with children. One of the earliest of the science texts for teachers—that is, of the books with the newer viewpoint with respect to dynamic science teaching—lists 63 activities for children involving chemicals alone.[13] The "Things to Make and Do" type of book provides literally hundreds of ideas. The experiences proposed here make no attempt to compete quantitatively with volumes of this kind. Instead, an approach is made through a sampling of the daily happenings likely to occur in any school, which build desired values when properly guided by the teacher.

What floats? Questions about objects that float are common in the primary grades. Toy boats that are brought to school or bits of material floating in puddles or gutters after a rain may lead to experiments with different objects in a bowl or pail. Will a nail float? Does wood *always* float? What about corks, pencils, a rubber ball, a scrap of cloth, or a piece of paper? Children, as they experiment to reach conclusions as to what will float and why, may be helped to build an understanding of the scientific method.

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[13] S. R. Slavson and Robert K. Speer, *Science in the New Education* (New York: Prentice-Hall, 1934), pp. 360-361.

Keeping a weather calendar and temperature records. Sudden weather changes affect children directly as to the clothing they wear and the things they do. Interest may easily be directed to a weather record kept by the class, perhaps on a classroom calendar large enough so that pictures of umbrellas, clouds, and other symbols can be drawn beside the dates. The weather calendar encourages discussion, observation, and taking turns at record-keeping.

Similar to the weather calendar, the temperature record is useful with upper primary and lower intermediate children.

A school nature trail. When city parks or open country lie near by, children are eager to visit, and nature trails can be created as a result of their interest. Sometimes it is possible to label growing things along the route with descriptive cards dipped in paraffin to provide temporary weatherproofing. Nature objects that children bring to school frequently prompt such an enterprise. Planning nature trips, looking up needed information for labeling growing things found along the trail, and a better understanding of the immediate environment are usually involved in this kind of venture.

Seed and leaf collecting. Collections can involve merely busywork. With the guidance of the artist-teacher, however, they become really creative experiences. Seed and leaf collecting, perhaps in conjunction with a nature trail, are representative of the simple, appealing activities that are appropriate with younger children. Their value resides less in the collection than in planning displays, research to identify specimens, or the use made of seeds. In a stimulating schoolroom, children invariably bring in treasures of one kind or another. From there on, developments depend on the teacher's initiative.

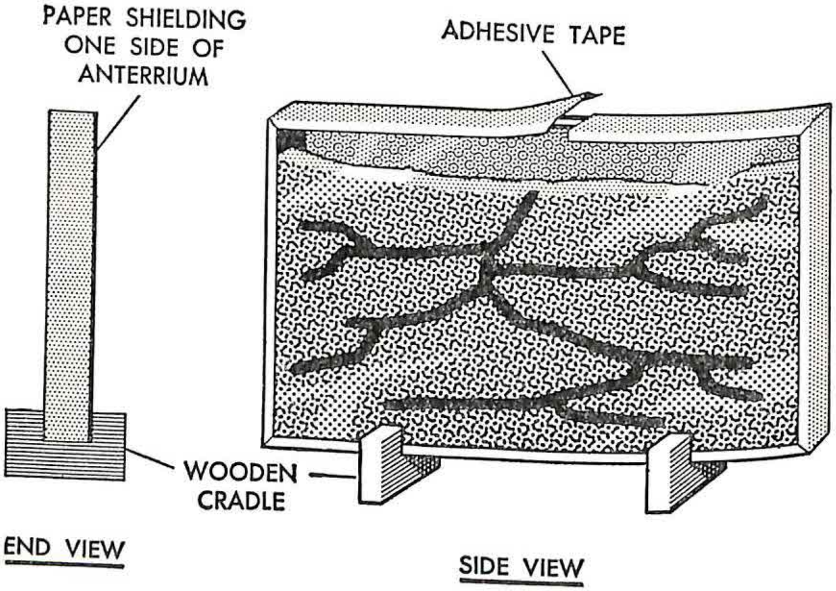
Animal tracks. Except in the heart of cities, it is commonplace for children to note animal tracks in new-fallen snow. What stories do they tell? Who made them? How can we learn more about them? Damp sand at the beach and moist earth in the woods may offer possibilities when there is no snow on the ground.

Care of pets. The universal appeal of small living creatures to children needs no comment. Nearly all boys and girls love them, regardless of the type of animal; it may be a hamster, a rabbit, a frog or toad, a newt, a grasshopper, or a dove. Spontaneous interest springs up inevitably whenever an animal appears in the classroom. If someone brings in pigeons, guinea pigs, or white rats, for example, much can be learned from housing, feeding, and caring for them. An understanding of life processes as creatures breed, excrete, eat, play, or die is one likely outcome of a study begun spontaneously when a creature comes to live in the classroom for a time. Sharing responsibility for pet care—fun at first, often a chore later—brings additional values.

A birds' Christmas tree. At the holiday season, many schools emphasize giving as well as receiving. A "Christmas for creatures," perhaps in the form of a birds' Christmas tree, might develop spontaneously as a result of a discussion of what one of the primary rooms might do for others. And it requires much sound thinking and doing to make a tree on the playground "just right" for birds. What do they eat? How can food be fastened to the tree properly? Who will care for it during the holiday recess?

An "anterrium." Suppose that a group of eight-year-olds, in autumn or in spring, finds it fascinating to observe the ceaseless haste of ants running to and from their hill. Here the teacher has the making of a spontaneous interest in what goes on below the surface of

Figure 12:1. Anterrium



the ground when an ant vanishes in the opening to its colony. Some child is almost certain to ask about it. A bit of work and approximately a dollar invested in materials will suffice to help children find some answers. A classroom ant house or "anterrium" can easily be made by children. It consists of two pieces of old window glass, with earth packed between, and with one-inch adhesive tape binding the edges. Ants, caught to populate the anterrium, quickly build tunnels. A sheet of dark paper to shield one side encourages them to dig there and, when temporarily removed, gives a view of a cross section remarkably like a real ant hill. Continued interest over a period of weeks and considerable knowledge of ant activities are likely to result. Here is an example of how a little imagination and effort can transform a child's question into a good learning activity.

The aquarium and terrarium. When fish, polliwogs, tree toads, turtles, garter snakes, and similar spoils from summer camp or vacation trip find their way to the classroom, it usually is both pleasant and profitable to set up a balanced aquarium or terrarium. Here again, the value is found in what children contribute to the process through discussion, planning, reading, and the sharing of responsibility.

Telling time by the sun. During the year, children in upper primary and intermediate grades are likely to comment on increasing or shortening hours of daylight or on the changing position of the sun. From so ordinary an event as this may come careful thinking with regard to estimating sun time during the various seasons. Marking the position of shadows on the floor or the window sill or using a stake driven into a sunny corner of the playground to study shadow movements are helpful devices.

Sky maps. If children are sufficiently mature, say, nine years old, some of them are likely to become interested in the heavens. A display of northern lights in higher latitudes of the United States, an eclipse of the moon, or a meteor shower can lead to the making of star maps as a spontaneous enterprise. Children can be helped to know familiar constellations, to locate the North Star, and to learn some of the early myths and legends that "explained" scientific phenomena in olden times when man's knowledge was less complete and when his instruments were less perfect.

How do toys work? Throughout elementary school, particularly before and after Christmas, children are likely to be toy-conscious. The teacher can promote science learnings by capitalizing on this highly seasonal enthusiasm. How do the toys brought to school operate? Here is a lead to the physical sciences, which are more likely to be neglected than are the natural sciences in the early years of school.[14]

CORRELATED SCIENCE EXPERIENCES. In the intermediate years, as subject matter becomes more plainly evident in the curriculum, some of the best opportunities for meaningful science work (and the realization of values that accompany it) begin with ideas originating through other fields, particularly the social studies. A few of the ways in which teachers actually have guided science learnings, in conjunction with other classroom enterprises, illustrate how natural and normal it is for correlations to develop.

Transportation as a source of correlations. During a transportation project in the social studies, one teacher encouraged a part of the class to work on a science interest regarding why airplanes fly. A homemade wind tunnel powered by an electric fan was made and used with model planes. Another group made a tin-can steam engine. Steam escaped through a tiny hole in the lid of the can, when water was boiled in it, and turned a small paddle wheel mounted above the hole where the steam would strike it. Later, various similar activities were incorporated in a display of visual materials prepared as the enterprise drew to a close.

Natural resources. In a semirural school district, a study of natural resources of the United States, including timber resources, culminated in several days of field work, during which the children worked with a representative of the National Park Service in reforesting eroded hillsides near their school. Seedlings were provided by the government.

Science learnings through physical education. Following several playground injuries to children, the physical education director and teachers of the intermediate grades worked out a series of simple first-aid experiences in the classrooms. A number of science studies as to how the body works was one of the outcomes.

Music correlations. Experimentation with the physical properties of sound developed from questions some children asked about musical instruments and how they operated. The classroom teacher, who was present during the music class, obtained tuning forks, bottles of similar shapes that were filled to different levels with water, glasses of various

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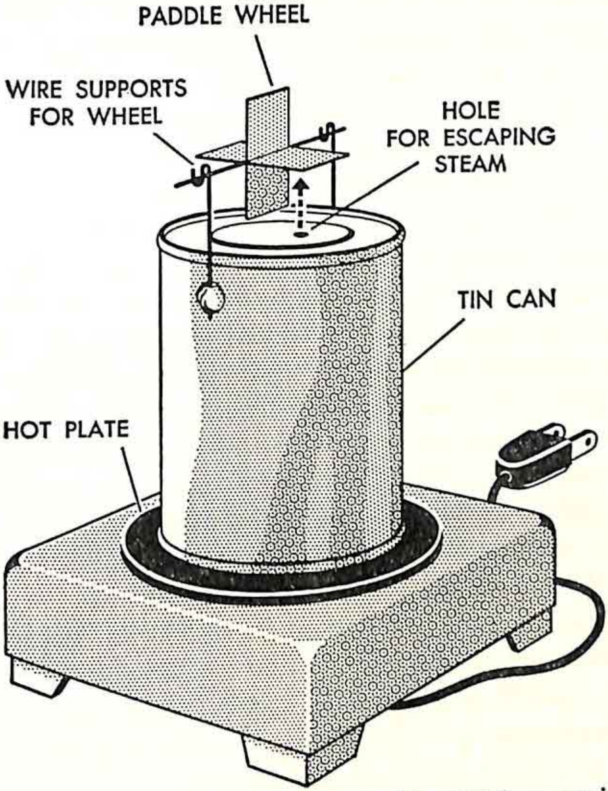
[14] A number of more detailed descriptions of many simple science experiences are available in two inexpensive publications of the Association for Childhood Education International: *This Is Science* (1945) and *Science and the Young Child* (1936). (Published by the Association, 1200 Fifteenth Street, N. W., Washington, D. C.)

Figure 12:2. Tin-can Engine



shapes and sizes, and other equipment with which experiments were conducted. Later, some of the children made simple musical instruments: a "xylophone" using the bottles, a "xylophone" made of tuned wood blocks, cigar-box ukuleles, comb-and-tissue-paper kazoos, and so on.

Geography. Various science learnings originating through the geographical content of the social studies have been developed by teachers planning with children. One class made a large sand table model of a watershed after discussing the Continental Divide in grade 5. It was waterproofed, so that it operated when water was sprinkled over it. In another school, a study of climate led to experimentation with regard to the causes of rain. A shallow dish was filled with water and placed in a large aquarium, with a plate of dry glass placed over the dish. Subsequently, droplets of water formed on the underside of the glass sheet; when this was tapped lightly, they fell back into the dish. The children, because of this visual illustration of the water cycle, were better able to understand the teacher's earlier verbal explanation of how water evaporates, condenses, and falls in the form of rain.

A study of communication. A study of the development of modern communication quite frequently appears in the curriculum. One example of science activities related to this field (installing a buzzer system between adjacent schoolrooms) has already been given as illustrative of the correlated experience. Telegraph keys and sounders are variations of the same idea and were developed in the same class situation. A more novel science correlation was created by a group of upper-intermediate children near the close of a study of "How man has communicated." The children planned over 20 scenes in the history of communication and, using 35mm. still-camera color film, made a film strip that they projected for a parent program. Each photograph was accompanied by an informal descriptive talk given by one of the group. The science correlation consisted of the study of practical photography necessitated in making the pictures. Children were photographed in a corner of the playground as American Indians sending smoke signals, in the classroom as Babylonians working on cuneiform tablets, as Egyptians preparing papyrus scrolls, as nineteenth-century telegraph operators, and so forth. Stage sets had to be constructed and adequately lighted; film exposures had to be studied; and the two cameras used had to be operated properly. As the work progressed, there were excellent opportunities to search for answers to problems, to test ideas, and to acquire functional information.

A number of similar creative approaches to learning might be presented. The examples of correlations given suffice, however, to show how science education can be made an integral part of the work of the elementary school. At the risk of redundancy, the authors again point out that the examples of science activities selected are valuable to the children, not only for the factual learnings but for the developing purposes, planning, thinking, and doing that the work initiated.

SCIENCE-CENTERED EXPERIENCES. The lines that divide spontaneous, correlated, and science-centered activities are not always easy to discern. A spontaneous interest may grow into a science-centered enterprise, or science work that correlates with the social studies may, for a time, dominate or even supersede the activities in social studies. Science experiences representative of those that are especially suited to extensive experiences include work with growing things, study of the atmosphere, animal study, simple astronomy, electricity and magnetism, elementary geology, early life on earth, weather, or how the body works. Here are some descriptions of enterprises centering around science in elementary schools.

Astronomy. A teacher of younger intermediate-age children met regularly with some of the boys for work in Cub Scouting. One evening after a meeting the youngsters commented on how bright a "star" was in the sky. The teacher explained that it was not really a star but a planet that they saw. In class the next day, there were more questions about astronomy, prompted in part by a current moving picture that dealt with a trip to the moon in a spaceship. Such lively interest was shown that the teacher, after school, drew a number of colored chalk pictures on the blackboard, which presented theories as to how the solar system was formed, and borrowed a small, 3-inch telescope and tripod from a high school teacher. The original interest, with the impetus the drawings and the telescope provided, led to more than a month's study. The children talked over some of the things they knew—or thought they knew—about astronomy and listed many more questions to which they hoped to find answers. Committees were set up; books were found for an "astronomy section" in the room library; trips were arranged; arts and crafts were activities planned—and, as the weeks passed, many learnings developed. Some of the activities involved:

(1) Observing sun spots through the 3-inch telescope (with the help of a dark-glass eyepiece that could be attached to it);
(2) Making and using smoked glass for solar observations;
(3) Two evening observations of the moon and planets, including Jupiter and its larger moons, which were visible through the 3-inch telescope;
(4) Two trips to a local university observatory;
(5) Construction of a large kraft-paper frieze on which the relative sizes of planets were compared in colored chalk drawings;
(6) Construction of a telescope made of two cardboard mailing tubes and lenses loaned by the science department;
(7) Art work and stories dealing with interplanetary travel;
(8) A trip to see meteorites on display in the local museum of natural history;
(9) Construction of a model "planetarium" consisting of a papier-mâché sun mounted on a sturdy broom handle, with the nine planets wired in appropriate positions around it;

(10) Making clay models of the moon's surface, complete with mountain and craters; and

(11) Construction of sky maps made with fluorescent chalk, which glowed when exposed to light.

The range and variety of these activities imply the rich experiences and planning in the astronomy enterprise. It is also easy to conceive of the wide reading, vocabulary growth, number-and-space concept development, and similar related learnings that accrued to the children. Is such an exploration of subject matter defensible with nine-, ten-, or eleven-year-olds? Evidently so, for the stars, planets, sun, and moon are a part of the child's immediate world. He can see them, find information himself to make them more understandable, and realize many developmental values in the process.

The atmosphere. One day a group of six-year-olds noticed that the water level in their aquarium was lower than it had been. The teacher asked the children why they thought this had happened. Several ideas were advanced (all of which were incorrect), and one, "Maybe the fish drank it!" was decidedly novel. Finding no solution to the matter, the group dictated a note inviting the science consultant to come and help them. This teacher suggested experimenting with water to find an answer. With some help and suggestions, the children placed similar quantities of water in a number of vessels of different shapes: saucers, narrow-necked bottles, and wide-necked bottles. In a few days, it was possible for them to decide that the water disappeared into the air and that, the greater the exposed surface, the more rapidly evaporation occurred. Other experiments with condensation followed, and for weeks the center of interest persisted.

At higher age levels, experiences with properties of the atmosphere may become more complex. There are numerous experiments—burning a candle in a milk bottle inverted in a dish of water from which the water rises into the bottle as the candle consumes oxygen in the bottle; heating and sealing a tin container that subsequently collapses under the pressure of the air[15]—by means of which the atmosphere can serve as a center for prolonged and profitable study, during which children search for and find explanations of phenomena in the world about them.

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[15] See Charles F. Arey, *op. cit.*, pp. 16-33, for further information and detailed directions.

Elementary geology: early life on earth. A valuable and rewarding science experience may grow out of geology. Children frequently collect attractive or unusual stones and fossils and want to know more about them. Given encouragement, a science-centered enterprise develops quickly. Field trips to look for fossils and various types of rocks, a study of the manner of the earth's probable origin, and the nature of its present composition and resources are typical components of such work. Frequently interest moves into the realm of the origins of life on earth and its early development. Ancient life has a strong appeal to the imagination of children and lends itself admirably to related work in art through drawing and modeling the creatures large and small that lived millions of years ago. The story of oil and coal, and of early man and his ways of living, are further areas that help children understand how the present was shaped by the past.

Science-centered learnings to which language, number, the social studies, the creative arts, and other areas can contribute defy complete classification or description, because the number of possibilities is limited only by the competence, creative artistry, and imagination of teachers. One group, for example, based considerable work upon experimenting with ways of dyeing colorful curtains for a barren room. In another situation, a wave of early pubescent self-consciousness (which originated with a forthright 11-year-old who mentioned in class that she had begun to menstruate) was channeled by a wise teacher into a matter-of-fact learning situation, including not only sex information but a general study of normal body processes: digestion, circulation, respiration, elimination, and reproduction.

As in the case of any curriculum area, elementary science in any of the classifications used here—spontaneous, correlated, science-centered—should be appraised with reference to what it contributes to human development. Are children becoming more adequate persons through school living involving science? Creative science experiences, as described, are concerned not only with ingenuity in devising ways of helping children learn about their natural and physical environments but also with the creative development of the child's inner self in the direction of mature behavior.

SOME GENERAL CONSIDERATIONS IN ELEMENTARY SCIENCE TEACHING. Several questions are likely to arise when persons interested in elementary science discuss their work. What do educational values suggest when one confronts the following issues:

Shall the schools sponsor elementary science clubs? Children, especially in the intermediate grades, may have the opportunity to join science work groups sponsored by a teacher on the staff. Usually these clubs meet in the late afternoon. Educational values suggest that such a means of providing science experiences is undesirable, because it is a poor substitute for science as an integral part of the program. Other after-school interests interfere; the children's enthusiasm may cool between meetings; and the program is likely to be more or less isolated from classroom living. Relegating science to an extra-curricular status also seems to belittle its importance for *all* children.

On the positive side, science clubs may cut across class lines and help children of varied ages to learn from one another. They provide extra time, which, in some schools, may not be available during the day for science experiences. Also, the clubs sometimes permit children to work with a teacher especially well qualified and interested in the sciences. Such advantages do not fully compensate for a lack of classroom science work. At best, the club can only supplement the science program in the regular classroom group. It cannot replace it.

Shall science texts be purchased? There is a real place for the well-written, often beautifully and accurately illustrated elementary science texts now available. However, the authors propose that such texts often may best be used as resources in developing and adding meaning to classroom experience rather than as content outlines. Values sought through science work suggest that a variety of texts be available, but that they be drawn from a central location as needed, rather than purchased as sets for the exclusive use of a single classroom. This procedure is further recommended by the fact that science texts vary in reading difficulty. The use of similar material in different books helps the slow-maturing or the gifted child to find material appropriate to his ability. Besides, the amount of information available to the class through the printed page is increased when three partial sets of different books rather than one complete set of the same books are purchased.

What is the place of supplementary reading materials? The type of program in science that is advocated in the preceding discussion of creative science teaching strongly urges that considerable sums be budgeted for supplementary reading materials that satisfy search-discovery methods of teaching. A variety of non-text materials also helps to stimulate and to nourish science interests.

Are there general patterns of grade placement of subject matter? Despite the fact that no teacher should object to "a sixth-grade bug in the fourth-grade room," children's interest in science follow general patterns that suggest that certain learnings are likely to be appropriate at particular age levels. Younger children have an overwhelming interest in pets and creatures of every kind; older children are more likely to grasp concepts in physical science. As a rule, the propriety of an experience is related to the *way* in which it is developed rather than to the *nature* of the science content. For instance, certain facts about reproduction may be appropriate in connection with pets cared for by five- or six-year-olds and equally appropriate at a more complex level in terms of a "My Body and How It Works" enterprise with fifth- or sixth-grade pubescents and prepubescents.

What science equipment shall be available in the classroom? Although lack of science equipment is one of the handicaps mentioned by classroom teachers,[16] a great assortment of glassware or chemicals is decidedly less important than an interest and belief in science experiences on the part of the teacher. Indeed, many developmental values originate through children's efforts to find means to overcome material lacks. Almost any science enterprise can be carried out with waste materials, items that children can bring from home, or local store equipment. A glass mason jar will serve many of the purposes of a beaker; a telegraph key made of scrap wood and tin-can metal by children has more meaning for them than the commercial product already assembled. A few basic tools (pliers, hammer, screwdriver, etc.) and a small fund of money, perhaps $10, for such miscellaneous purchases as glass tubing, hardware cloth for pet pens, or seeds will see anyone through a year of science work.

▪ The Teacher's Self-appraisal of His Work in Elementary Science

Every normal human being, at some time or other, is troubled by doubts about the effectiveness of his work. Elementary school teachers using science as a means to stimulate and guide human development are no exception to this rule. Some common quandaries likely to trouble the thoughtful teacher are:

(1) How can I keep up with the changing content of science? How can I be reasonably sure that what I help children to learn is really true?

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[16] Theresa J. Lammers, *op. cit.*, p. 294.

(2) How can I avoid attacking the personal values of parents, for example, with regard to religion, in the process of teaching science?
(3) How can I best educate children for change in a world that science has made capable of self-destruction and that is, paradoxically, increasingly dependent upon science for survival?
(4) How can I help children recognize and respect established traditions and institutions while encouraging a measure of scientific skepticism? How can I help children avoid cynicism and materialism?

The scientific approach to problems of living poses many such quandaries.[17] How can the teacher meet them in his work with children and maintain a sense of personal security? At least a partial answer to the problem is found in the nature of the evaluative process when applied to the appraisal of elementary science practices. By clarifying educational goals, centering attention on child development, and demanding continued improvement in teaching practices, the evaluative process helps the individual teacher and the whole school staff to think through persistent difficulties and to adopt the courses of action that their values, when carefully examined, recommend to them.

It is heartening, when confronting quandaries in the teaching of science, to recall that science has a morality, if the science teacher has but the depth of insight to see it. "Imbedded in the procedures both of democracy and experimental science is the old spiritual conception that it is by means of universal, cooperative community that one can best achieve human security and welfare."[18]

■ Summary

The unique contribution of science to the elementary school was considered early in Chapter 12, when it was pointed out that this area is especially suited to help children understand, adjust to, and control the world about them. Particular stress was placed upon the contribution of science experiences to a vigorous and enduring democracy.

Subsequently six approaches to elementary school science were described: incidental and spontaneous experiences, the science reading lesson, the course of study, correlated science work, and the science-centered enterprise. Each approach was analyzed, and it was pointed out that circumstances helped to determine which of the more desirable teaching-learning procedures are most appropriate in a specific classroom situation.

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[17] For a more complete list, see Benjamin C. Gruenberg, "Dilemmas of the Science Teacher," *Science Education*, 33:288 (October, 1949).

[18] John L. Childs, *op. cit.*, p. 266.

A brief commentary on testing and a presentation of criteria for science experiences preceded descriptions of creative science teaching at varied grade levels. This illustrative material was followed by a brief consideration of specific questions frequently raised in conjunction with science programs, such as: Shall science texts be purchased? The chapter concluded with mention of some of the self-evaluative questions that elementary science teachers may wish to answer for themselves as they work with children.

In the last several decades, elementary science has made at least as much wholesome progress as any other area of experience in elementary education. Many school workers are beginning to agree with Haldane's conclusion in his *Daedalus* that "Science is vastly more stimulating to the imagination than are the classics," and also to recognize that certain aspects of elementary science are uniquely important in the over-all process of guiding human development. Educationally desirable values demand even more rapid expansion of the schools' use of the method as well as the content of science throughout the elementary years.

Discussion Questions and Suggested Activities

1. What are some of the specific ways in which primary or intermediate level children can be helped to experience science as "a controlled method of human inquiry"?
2. In what ways can elementary science be made an integral part of children's social education? Of social studies projects or activities? Of mathematics?
3. Apply the 11 criteria (see pp. 311-312) to science education practices in your school district. Do they suggest any gaps or lacks in this program?
4. As circumstances permit, (1) arrange a visit to a company engaged in work associated with applied science or (2) take a "nature hike." What preliminary preparation, cautions, and follow-up discussions involving children, suggest themselves as a result of this trip?
5. Review one or more of the books and series of science publications available for children to use at the grade level(s) in which you are interested.

Selected and Annotated Readings

1. Blough, Glenn O., and Marjorie H. Campbell, *Making and Using Classroom Science Materials in The Elementary School.* New York: The Dryden Press, 1954.

   Helpfully illustrated and practical ideas for activities. An unusually fine and convenient reference.

2. Blough, Glenn O., and Albert J. Huggett, *Methods and Activities in Elementary School Science.* New York: The Dryden Press, 1951.

   A good desk book for the teacher with many useful explicit ideas for activities.

3. Burnett, R. Will, *Teaching Science in the Elementary School.* New York: Rinehart & Co., 1953.

   Both methods and materials, viewpoint and activities are reviewed in this large competently written book. Helpful to the teacher who seeks guidance on desirable content for elementary science programs.

4. Department of Elementary School Principals, Thirty-second Yearbook, *Science for Today's Children.* Washington, D.C.: The Department, 1953.

   Written by people who are for the most part working directly with children. Appealing and helpful descriptions of practices.

5. Dunfee, Maxine, and Julian Greenlee, *Elementary School Science: Research, Theory and Practice.* Washington, D.C.: Ass'n. for Supervision and Curriculum Development, 1957.

   A useful booklet that stitches together research findings, authoritative viewpoints, and reports of practice to provide many ideas for program improvement. An excellent bibliography of 176 items is included.

6. National Society for The Study of Education, Forty-sixth Yearbook, Part I. *Science Education in American Schools.* Chicago: University of Chicago Press, 1947.

   A scholarly compilation of research and informed opinion in the total field of science teaching.

13

An Appraisal of Special Fields and Special Services as Curriculum Resources

WHEN a school staff concerns itself with evaluation of the elementary school curriculum, it quickly becomes apparent that special fields and special services must be studied along with such areas as the language arts, science, arithmetic, or the social studies. This is inevitable because they are—or should be—an integral part of the good program.

The staff is also likely to find that the process of appraisal becomes more difficult as it touches upon such special fields as art and music education or the special services provided by the librarian, the school nurse, and the school psychologist. The difficulty arises from the fact that special services and special fields, while they have a vital influence in shaping socially desirable changes in children's behavior, frequently are organized and administered in American public education in such a way as to be separate and distinct from that part of the curriculum for which the classroom teacher is responsible. The present chapter is concerned with an evaluation of special fields and special services, with particular regard for the problems inherent in making both an integral part of school living. Also, suggestions are made for increasing the effectiveness of such offerings in the total program.

An Overview of Special Fields in Elementary Education

WHAT ARE SPECIAL FIELDS? The special fields in elementary schools vary with the organization of the local school district. For purposes of definition, they are hereafter considered to be those areas for which there are special teachers, consultants, or supervisors with responsibilities distinct from those of the general elementary supervisor, and either for which the classroom teacher is not responsible or in which he works with a staff member who has had special training.

To be even more specific, if a teacher is responsible to a special consultant for his art instruction, or if an art teacher handles the program and activities exclusively, art is then considered to be a special field. Among the subject areas that may be special fields by this definition, the following are the more common:

Art
Music
Auditorium
Craft shop
General shop
Elementary science
Printing (grades 7-8)
Physical education and health
Home economics (grades 6-8)
Library services

(*Note:* Teaching aids are often supervised or administered by a consultant. This field is not listed here because it cuts across all the special areas, as well as across all grade levels, and has no unique subject content except as the equipment itself may provide learnings for children.)

Surveys suggest that a substantial number of schools and states provide special help and direction to elementary education through consultants or supervisors.[1] This condition seems certain to prevail for a long time to come, and, as a result, it is justifiable to examine carefully the place of special fields in a general appraisal of the school program. Before we proceed, it seems important to note that a somewhat artificial distinction is made between *fields* and *services* offered in the curriculum. Special *services* are treated later in the chapter and, for purposes of discussion, are construed to include such aspects of the program as provisions for guidance and library resources.

THE GROWTH OF SPECIAL FIELDS: HOW THEY COMPLICATE EVALUATION. The process of guiding changes in children's behavior is made more complex by current practices in special fields for two reasons: (1) the nature of the historical development of special fields into their present status; and (2) the continuing trend toward curriculum enrichment, which has been characterized by expansion of special fields as well as increased content in language arts, arithmetic, and so forth. Because they are two of the most commonly encountered special fields in elementary schools, music and art are singled out as examples.

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[1] Effie Bathurst, *et al*, *Organization and Supervision of Elementary Education in 100 Cities* (Washington, D.C.: Federal Security Agency, Office of Education, 1949). See also Fred F. Beach, *The Functions of State Departments of Education* (Washington, D.C.: Federal Security Agency, Office of Education, 1950).

The development of music and art as special fields. Vocal music education as a special field in public education began in Boston over a century ago. After 1870, the music teachers in larger schools were often designated as supervisors, in keeping with trends in general education in the direction of a line-and-staff type of organization. These supervisors, for the most part, directed the activities of special teachers of music or supervised elementary school classroom personnel in their music teaching. Since 1900, instrumental music has become a part of the curriculum, and the program has expanded in a number of ways; for example, by the introduction of instrumental classes in violin and piano.[2]

The development of art instruction has been similar to that of music. Credit for originating art instruction also may be given to the public schools of Boston, where it was begun even prior to music teaching. During the nineteenth century, art lessons were highly stylized and were thought to develop the faculty of perception by disciplining hand and eye. In New England industrial centers, art classes were also valued, in the last half of the nineteenth century, as a means of training students for employment as industrial designers.[3]

The past 50 years have seen the growth of similar trends in both art and music instruction: a movement toward increasing emphasis upon appreciation, recognition of the importance of the pupil's personal enjoyment, and stress upon the recreational values of art and music to children. A current book by de Francesco[4] is an especially good source of information, both succinct and well written, on developing concepts of good art education during the past century.

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[2] For one of the few overviews of the development of music education, see E. B. Birge, *History of Public School Music in the United States* (New York: Oliver Ditson Co., 1937).

[3] Additional background information may be found in *Art in American Life and Education*, Fortieth Yearbook of the National Society for the Study of Education (Bloomington, Ill.: Public School Publishing Co., 1941).

[4] Italo L. de Francesco, *Art Education: Its Means and Ends* (New York: Harper & Bros., 1958), Ch. 2.

Evaluation of special fields in the elementary school is made more complicated by the nature of their development. Until rather recently, they developed parallel to, rather than as a part of, children's learning experiences in the classroom—that is, special fields were a part of the elementary school program guided by a special teacher or supervisor, but not coordinated with the program. Teachers and supervisors in special fields even now are trained frequently with major emphasis upon their specialty—be it physical education, shop, or music—but with too little heed to the relationships between their field and the whole educational program.[5] Also, classroom teachers, aside from a required methods course or two, often know relatively little about special fields, since little time is available during their professional education for any such diversified experiences.

While not inevitable, it is more than likely that the values of some elementary classroom teachers and certain specialists will clash when program appraisal is begun. Indeed, the nature of the organization of a large number of public schools encourages this difference of opinion. Many special teachers and supervisors are not expected to concern themselves with the role of their fields in relationship to social studies or communication skills, but merely with the content of their area. Classroom teachers may be equally lacking in insights into the realm of special subjects and in their contribution to children's development.

In the continuing and cooperative group process of evaluation, the school staff focuses its attention on children and on the way that their psychological behavior can be influenced by the curriculum. All school workers, therefore, are challenged to meet the need to reconcile the specialist's understandable enthusiasm for the content of his specialty with the emphasis upon human behavior and its improvement that evaluation requires. The issues involved here will be discussed shortly. First, however, there is the matter of the overcrowded curriculum to examine.

CAN WE AVOID MORE CURRICULUM CROWDING? As modern life has increased its demands on individual human beings, more and more responsibility has been given public education in order that it might help to meet these demands. In part, this is an outcome of value conflicts in the culture.[6] Thus schools are being placed under pressure to provide educational experiences of great breadth and variety. To satisfy divergent parental and community aspirations, children are expected to be socially, personally, and culturally adequate; scientifically-minded, well mannered, and yet able to survive in the rough-and-tumble, competitive marketplace. The school's efforts to satisfy these demands have resulted in an increasingly crowded curriculum.

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[5] An early example of research in teacher training in special fields is Edna McEachern, *Survey and Evaluation of the Education of School Music Teachers in the United States*, Contributions to Education No. 701 (New York: Bureau of Publications, Teachers College, Columbia University, 1937).

In many school systems, the quantitative increase in subject matter has led to consideration of the question of what can be omitted or dropped from the program to make room for new content that has established its importance. Granted that enrichment is highly desirable, when does it reach a point of diminishing returns? At a teachers' meeting, a principal pointed out that the six- and seven-year-olds in his building were in school four hours per day or 20 hours per week. He went on to present the following data:

Enrichment Experience	*Hours per Week*
Music (with special teacher)	1
Art (with special teacher)	1½
Gymnasium (two 45-minute periods)	1½
Recess (15 minutes in morning and afternoon except on gym days)	2
Educational films	1
Assembly programs (average)	1
Science (average per week during year with consultant)	¾
Miscellaneous items: early dismissals for teachers' meetings, standardized tests, collections, fire drills, etc.	1
Field trips	½
TOTAL	10¼

The principal contended that the four-hour day was long enough for the children to spend in school, especially since teachers reported to parents in conferences scheduled during the late afternoon or worked with individual children when the entire group was not present. He was, however, concerned over the fact that during some busy weeks there were fewer than 10 hours of teaching time per week available for the teacher and the children to share alone. Many of the enrichment experiences that the principal enumerated probably were related to social, number, and communications skills—field trips, for instance; but there is good reason to appreciate his concern lest teachers be pressed for time in an overcrowded day. Evaluation of both special fields and special services must take into consideration the problem of the crowded curriculum.

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[6] See Chapter 4.

When *does* enrichment of the child's environment reach a point of diminishing returns? When do proliferating experiences overload the private inner curriculum that each child is creating for himself? Elementary schools should try diligently to answer these questions as they examine the effect of their offerings on children's behavior.

▪ Evaluating the Control and Direction of Work in Special Fields

Creative experiences are essential in the lives of children as they progress toward maturity. Learning itself is personal and creative, and special fields in many ways are necessary resources for achieving the school's developmental goals. An evaluation of special areas should recognize both their importance and the need that they be fully incorporated in the curriculum. Precise conclusions as to how this may be accomplished can be reached best by the school workers immediately concerned in a local district. Some conflicting theories regarding the function of special fields are encountered so frequently, however, as to justify a general discussion here, in an attempt to clarify current confusions regarding their organization and content.

CONFLICTING THEORIES REGARDING THE ORGANIZATION OF TEACHING AND SUPERVISION IN SPECIAL FIELDS. Two opposing viewpoints regarding special fields that sometimes concern the evaluator are essentially matters of administrative policy. One view holds that specialists should be employed as *consultants* who serve the teacher on request, by providing special information and skills, and by sharing directly in a classroom enterprise as it involves the consultant's specialty. Opposed to this is the concept of the *special teacher* or *supervisor* who either operates with a large measure of independence, say, in art and music, or who directs the work of the teacher and is held personally accountable to the principal or to the superintendent for the quality of children's experiences.

The authoritative supervisory role of the specialist is sometimes criticized for such reasons as these:

(1) No one really possesses "super" vision that enables him to direct a capable teacher's activities through occasional visits and advice. The professional teacher, in daily contact with children, is in

the best position to determine how their experiences shall be guided with regard to the contributions from special fields.

(2) The supervisor, as the teacher's "superior officer" in a line-and-staff organization, is confronted by a psychological obstacle in working with the teacher. The teacher is likely to view the supervisor as a "boss" and either be timid or cautious in seeking needed help or tend to comply with suggestions that he really does not think are good ones. There is the possibility, too, that the classroom worker will "teach for the supervisor" by planning the daily program merely to please him.

(3) In democratically organized schools, there should be differences in *function* rather than in *rank* among staff members working with children. This suggests the consultant rather than the supervisor as a staff member.

(4) Teachers do a better job when they feel free to work creatively as their knowledge of children directs. They prefer help from a professional consultant rather than directions from a supervisor in the role of a "boss" or director.

These four criticisms suggest that the special teacher should function as a consultant rather than as a supervisor. Unfortunately, there also are problems when a consultant approach is made in the organization of teaching in special fields. One such difficulty is related to the status of the consultant. Is he merely at the call of faculty members working in the classroom, or does he have a distinct responsibility for his special field and authority commensurate with this responsibility? In case of disagreement as to procedures in special fields, whose viewpoint shall prevail—that of the classroom teacher or that of the consultant? It is likely to be a serious blow to the morale of those employed as consultants if they feel reduced to the role of handymen whose task is to run errands, to furnish supplies and materials, and to offer ideas only when requested to do so by the classroom teacher. Conversely, if the consultant's viewpoints in special fields carry the weight of administrative authority, what is the consultant other than the one-time supervisor operating under a new label?

Suggestions as to good teaching methods presented earlier[7] with regard to the implications of socially desirable educational values for classroom methods seem to offer some clues for the clarification of the role of the consultant and to propose a defensible administrative policy. These suggestions can probably be re-examined with profit.

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[7] See pages 117-118.

WHAT DESIRABLE CLASSROOM METHODS IMPLY FOR TEACHING IN SPECIAL FIELDS. The writers have maintained that sound educational practices or methods in the classroom demand:

(1) That teachers and children initiate and direct learning experiences cooperatively;
(2) That constructive freedom, as distinct from license, be encouraged;
(3) That a creative approach be made to learning, and that subject matter be used functionally;
(4) That learning be active, purposeful, and individualized;
(5) That drill or practice be employed only when children have been helped to see the need and to accept the need for it; and
(6) That teachers and pupils have access to the assistance of professional consultants.

Reflective study of these six demands and their implications should help school workers to decide upon a plan of action where the supervisor or the consultant in special fields is concerned. If it be granted that teachers and children should plan enterprises cooperatively, there is no place in the program for the special-subject teacher who insists that his area be taught as a separate subject. Piecemeal teaching, which this demands, violates the unity of effective teaching and learning. It bars children from the constructive freedom of directing their learning experience within the broad range of learning activities that the classroom teacher's knowledge of his group establishes as suitable to the children's maturity. It is probably redundant to elaborate on the fact that a creative approach to subject matter, purposeful learning, and meaningful practice are also jeopardized when external direction of classroom activities in special fields is permitted or encouraged by the administrative organization.

The points advanced thus far have been negative ones—why close supervisory direction of children's activities in special fields is undesirable, and why the trend toward the use of consultants may merely replace one set of problems with another. Let us now consider the positive implications of educational values. These values are based upon recognition of the importance of democracy in the classroom, upon the nature of the learning process, and upon an awareness of the educational facts of life—that is, what school workers can do now with present personnel, within the existent programs, in school plants already built or in the process of construction.

A PROPOSED ROLE FOR THE CONSULTANT IN SPECIAL AREAS. It is proposed here that the traditional supervisor of special fields has little or no place in the elementary school today if his work consists merely of directing classroom teachers in areas insulated from other classroom activities by barriers of content requirements in these special fields. Emphasis is placed, instead, upon the functions of the consultant as a resource person in elementary education, and upon the ways in which educational values suggest that his services be used. There are two key concepts involved in this approach.

(1) Leadership based upon ability and contribution. The person of the consultant, as a requisite for successful leadership, should combine through preparations, experience, and good personal qualities (especially sensitivity in human relations and skill in human engineering). When he possesses these assets, there is likely to be little question of his acceptance by classroom colleagues. Most teachers honestly welcome constructive help and positive criticism and do so gracefully when the consultant's leadership is the leadership of ability.

(2) Supervision through participation. The second key point related to the consultant's success is concerned with supervision through participation. This concept involves the well-qualified specialist's developing such skill that he can improve the classroom teacher's instruction by working as a member of the total classroom group in ways that will help it to become a unit consisting of children–teacher–consultant. It means, furthermore, that the consultant must develop the ability to participate in planning and guiding experiences that achieve common purposes or goals that teacher–children–consultant have selected and developed cooperatively. It is almost impossible to overemphasize the importance of this type of creative supervision. It places heavy demands upon the competence of the specialist, but at the same time it is highly rewarding for the teacher, the children, and the resource consultant himself.

An example of the teacher, children, and resource consultant in action may help to make this concept less abstract. Suppose a teacher at the intermediate level finds his class interested in a newly arrived transfer student who has moved from, say, Norway with his parents. (Today, such an event is by no means rare in American schools.)

From such a beginning, it is not unusual to find a skillful teacher developing with 11-year-olds an enterprise concerned with why and how the parents, grandparents, or ancestors of all the other children in her class first came to America.

At this stage in the development of a learning experience, the resource consultants in special fields begin to play an important role. What are some of the ways in which the contributions of art, music, or physical education, for instance, may help to enrich and lend direction to the emerging enterprise? Ideally, the teacher, children, and consultants should plan the work together. If all specialists cannot be present at one time, perhaps because of schedule conflicts, the teacher and a smaller group of the children may meet some of the consultants at a more opportune hour. During these planning sessions, all persons—whether staff or children—who are involved meet on an equal footing. Anyone with ideas to contribute is given opportunity to air them and to urge that they be accepted.

Insightful teachers and consultants are particularly necessary at this stage to insure that all children's proposals are considered fairly and that everyone concerned feel free to give the best of his thinking to the work at hand. This calls for real skill to insure that aggressive personalities do not monopolize the field and that the shy or bashful youngsters are not excluded. The resource person and teacher do not hold back in a discussion of plans if they have valuable thoughts to offer, but they need to be sure that they do not do all the thinking for the children, thus depriving boys and girls of the opportunity for growth that otherwise might be present.

As the enterprise takes form, the art or activities consultant may agree to work with all or some of the children on models, drawings, a frieze, or any one of infinitely varied possibilities for creative expression. Songs and dances appropriate to the lands from which children's families originally came may be given meaning and beauty through the music consultant and the physical education director. Any or all of the specialists might subsequently work with teacher and children in a sharing program in which the enterprise could culminate.

In the sort of group endeavor described, is a first-rate opportunity for the consultants really to come to know the teacher, and to help him become a better person with and for children by guiding his work with them through suggestions and example. This sometimes operates in reverse. Consultants also may learn, in the process of participation, a great deal about the manner in which the over-all work of the classroom is guided by a capable teacher. Seasoned classroom teachers subtly influence the in-service growth of the less experienced and less mature consultants, even as the teachers' skills and versatility are enhanced in return. Who is likely to be helped most by whom depends upon the relative professional maturity of the several staff members working together at a given time.

The example chosen should provide some indication of the consultant's "leadership-based-on-ability" role and of the way in which supervision, *conceived as the process of helping teaching improve school living,* can function best when the consultant participates directly in work with children. It also should be apparent that conflicting theories regarding the work of supervisors or consultants in special fields can be resolved if their work is evaluated in terms of its contribution to the total improvement of children's behavior. The participative approach promises not only to have a wholesome, direct influence upon the maturing of children but to have a wholesome effect upon teacher–consultant relationships as well.

▪ Principles of Effective Program Organization in Special Fields

Evaluation by the local school staff may be expedited by a list of principles developed inferentially from the preceding discussion, which characterizes a good program of elementary education as it involves the special fields. If agreement can be made with the observations that follow, it is likely that the broad outline and general direction of work in special fields are consistent with desirable educational values.

CHARACTERISTICS OF GOOD PROGRAMS INVOLVING THE SPECIAL FIELDS. Formulation of a good program involving the special fields can be developed broadly by considering the following characteristics:

(1) The special fields are an integral part of the elementary school program. They contribute to the planning and development of classroom enterprises, adding depth of meaning to children's experiences.

(2) The scheduling of work in special fields is based upon flexible time allotments. If it is necessary to have definite periods for music, art, and similar areas of experience, adequate provision is made for unscheduled work periods that teachers in special fields may use with children as the experience and ability of these boys and girls suggest.

(3) Supplies and equipment of many kinds are available or can be obtained quickly. Classroom teachers have ready access to materials, and their use is restricted, if at all, only in the interest of permitting their fair and efficient distribution among all concerned.

(4) There is sufficient space in which to carry on creative activities that flow from the special fields. This space is found in the classroom as well as within the confines of rooms set aside for music, art, shop, and so forth.

(5) Consultants employed to work with teachers and children in special areas have a background in professional education that extends beyond competence in their specialty and includes knowledge of child development, the elementary curriculum, and the organization of elementary schools.

(6) There is sufficient personnel in special fields to permit flexible schedules, consultation with teachers, time for preparation of materials, and time for personal growth.

(7) Schedules of consultants are deliberately set up to allow for sustained planning in the classroom situation as the need arises.

(8) Learning experiences that can be made more meaningful by the content of special fields are planned cooperatively by the consultants, children, and classroom teacher.

(9) Following the planning and preliminary organization of an enterprise, consultants work directly and personally with the children in large or small groups as the enterprise is developed.

(10) Classroom teachers are not rated or judged by the consultants for purposes of promotion, retention, salary-schedule placement, or for other concerns of the school administration.

These 10 characteristics do not, in themselves, provide a basis for judging the efficacy with which special fields are functioning in the elementary school. They are not even criteria for a program, since it would tax the ingenuity to translate them into behavioral terms. They are essentially discussion guides for the school staff initiating appraisal of special areas and engaged in redesigning present practices.

SHOULD THERE BE SPECIAL FIELDS AS SUCH IN THE ELEMENTARY SCHOOL? Before terminating the discussion of special fields, let us clear up a point or two. One is the question of whether it is reasonable, in the elementary school, to recognize and organize special fields *as separate and distinct* from the general curriculum. Some educational theorists argue that there should be little or no specialization and that the artist-teacher should be capable of handling all the child's experiences. At present, however, and for the discernible future, it seems almost certain that consultants will continue to play an important part in the elementary program. Only rarely is a given teacher personally qualified to draw upon the resources of art and music, to teach physical education, to use the facilities of shop and laboratory. As a result, the trend toward increasingly close cooperation among teachers, consulting specialists, and the children with whom they work is likely to continue. Undoubtedly it is a satisfactory, even a wholesome, trend.

The reason that certain educators have stressed the importance of the classroom teacher and minimized the role of the person primarily interested in special areas is found in their desire to make the child's school living a unified and unifying experience. As consultants and teachers *together* move toward this goal, objections to the presence of special subject fields should diminish to the vanishing point. *It is not the special areas themselves, but the teaching of their content in isolation from the totality of children's in-school experience, that, generally, is the target of criticism.*[8] "Extracurricular" activities of every description have been attacked for a similar reason during the past 20 years.

Will special fields retain their distinct identity as they come to be taught in increasingly close relationship to the social studies, elementary science, and communication skills? A reassuring answer to the specialist–consultant lies in the fact that all creative arts, crafts, and skills are—and always have been—a part of life and living in the recorded history of man. If anything, more functional and related teaching of the subject content of the special fields will make them even more durable elements in the culture. It certainly is not intended here to propose that art, music, crafts, and similar resources for better living should lose their integrity by becoming an incidental part of the school program.

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[8] Victor d'Amico, some years ago, concluded that rather rapid progress was being made in certain sections of the country toward correlation of art with other curriculum areas. A less pronounced but similar trend seems to exist in music education, too. The controversy regarding the correlation of the content of special fields with the social studies, for example, nevertheless remains a lively one. See Victor E. d'Amico, "High Lights of a Study of Art in Our Schools," *Art Education Today* (New York: Bureau of Publications, Teachers College, Columbia University, 1936).

SELECTING CURRICULUM CONTENT IN SPECIAL FIELDS. The stated purpose of this chapter is to consider some of the problems that arise when an effort is made to evaluate the special fields in terms of their relationship to the whole curriculum. This purpose is reiterated lest the presentation of the topic be condemned because it slights the appraisal of content in special fields and the nature and quality of the learning they help to endow with meaning.[9]

When a school staff gives its attention to the evaluation and selection of content in the special areas, it moves into the realm of highly specialized judgments, with which this chapter cannot concern itself (how a new song shall be learned, procedures to follow when working with monotones, the issue of whether or not sight reading shall be stressed—and, if so, beginning when; policy regarding skill tests and competitive games in physical education; the extent to which movement, color harmony, balance, unity, and pleasing proportion are to be called to the child's attention; and many more). It can only be pointed out that the aggregate values of the staff, and the nature of the human development to which these values point, can and should exert a pronounced influence on the curriculum policies accepted.

Good schools will not tolerate haphazard or hasty proposals regarding subject matter, which may be urged by a few articulate or opinionated teachers or consultants. Instead, they will reach conclusions based on a high level of cooperative and continuing evaluation. These will be permanently open to changes as new and better proposals for improvements in teaching and learning emerge in the schools' marketplace of ideas—in the daily interaction of teachers, children, consultants, administrators, and parents.

■ Enhancing the Value of Special Services in the Elementary School Curriculum

Special services are even less easy to characterize than are special fields, because their variety and range are great *among* the states and because they vary even more among the schools *within* a given state. Some of the more widespread special services in elementary education include safety, health, library, guidance, and psychological services, and the service of persons trained to aid handicapped children. In some localities, the schools also may count upon the help of nutritionists, pediatricians, psychologists, county agents, psychiatrists, psychiatric social workers, and a large group of social agencies.

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[9] Readings that deal with content in special fields are listed in the bibliography at the close of Chapter 13.

The extent to which these services are available to and used by public schools is determined, or at least influenced, by many factors: the extent of the financial support, personnel, and viewpoint of state departments of public instruction;[10] local assessed valuation of individual school districts, with its effect on tax income; the philosophy or philosophies of the community, board of education, superintendent, and teaching staff; the geographical position of a school—its location with regard to universities, large centers of population, or such institutions as clinics and hospitals. All of these are determining factors.

Despite the lack of uniformity in special services, some proposals can be made to evaluators who are seeking to use them as wisely and as fully as possible. One approach is found in values that schools may wish to attain through the curriculum.

EDUCATIONAL VALUES AND SPECIAL SERVICES. When a group of teachers evolves certain citizenship goals for children, reflecting those values that the staff believes are good, *the acceptance of these goals carries with it an obligation to act in ways consonant with the achievement of the goals.* Consider the following criteria, originally proposed in Chapter 2 as requisites for effective democratic citizenship. The developing young citizen:

(1) Is as physically strong as the limitations of his native endowment permit;
(2) Enjoys mental and emotional health;
(3) Is provided with equality of educational opportunity that considers the gifted and the slow-maturing child as well as the gradients of ability in children between these two extremes;
(4) Learns to think clearly, critically, and creatively;
(5) Acquires skills and knowledge of personal and social utility;
(6) Is becoming socially and economically literate;
(7) Develops an awareness and loyalty to democracy as a way of living;
(8) Increases his skill in employing democratic procedures and techniques;
(9) Becomes increasingly adept in creating good human relationships and in sensing their importance.

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[10] This is readily apparent from an examination of the responsibilities assumed by state departments, as described in Beach, *op. cit.*

If these or similar goals be accepted in a mature, serious spirit, each should help to determine whether or not a given special service should be initiated or used more fully. The major difficulty likely to be encountered, of course, is the *extent* to which an effort should be made to obtain special services for the school, since all of them are important in one way or another.

If one asks what special services are indispensable in helping the individual child to become an effective citizen, it is next to impossible to choose among such items as library, psychological, health, testing, and safety services or special help for the physically handicapped. Reaching a decision on the relative importance of psychological or health services is akin to deciding which element is more important in water—hydrogen or oxygen. Hydrogen atoms outnumber oxygen 2 to 1, but both are of equal importance in the mixture. This line of reasoning suggests that, just as more than one element is needed in water, so all elementary schools need access to a variety of special services for an effective program, even though some services meet the needs of smaller groups of children in the school than do others, as in the case of the physically handicapped child. It follows that the evaluators' problem, for practical purposes, is concerned with finding means to better services for the schools rather than with whether or not to use them.

Let us look again at the nine citizenship goals for children. Health services are necessary in keeping them physically strong, even as psychologists and psychiatrists are needed to guide and improve the quality of their mental and emotional health. Equality of educational opportunity demands planned special services in schools, including provisions for the needs of atypical children: the profoundly deaf, the hard-of-hearing, the blind, those with marginal vision, the spastic, the heart case, the gifted, the educable or trainable mentally handicapped, and so on. Library and testing services play so evident a part in acquiring skills and knowledges, and in gauging the school's success in helping children academically, as to require no elaboration.

Assuming the evident necessity for special services in the elementary school curriculum that is meeting the needs of every child, the evaluators face a problem that is a composite of using them wisely and assigning priorities in the process of adding service resources that the school does not, as yet, have. The budget-minded, cautious administrator and the teacher may ask at this point: "Where do we call a halt? Isn't it a little absurd to set no limit on expanding services?"

In *most* schools, however, these questions are irrelevant. Even in the most economically favored school districts, expending from 100 to 200 percent more per pupil than the national average in some instances, few—if any—have reached the saturation point. There still are children in the most economically favored districts who would stand to profit from the experiences that the classroom teacher alone cannot provide, if they could be financed and made a part of the program.

As a follow-up to the foregoing introductory statements with respect to special services, this chapter now concerns itself with an appraisal of the ways in which certain selected special services can become of enhanced value to the elementary curriculum. Because they are so widespread, hence of relatively great importance, attention is focused on (1) guidance, (2) library services, and (3) services provided to meet the special needs of rapid-, normal-, and slow-achieving children.

▪ An Appraisal of Guidance Programs in Elementary Education

Over the years, concepts of guidance at the elementary school level have gone through several phases. As a faculty appraises the services that this guidance can bring to children, it is necessary to ask whether current trends seem sound.

ARE CURRENT TRENDS AND INTERPRETATIONS OF GUIDANCE IN THE ELEMENTARY SCHOOL SOUND? Several decades ago, such guidance as was provided at the elementary school level was designed to help children who *already* were involved in problem situations. Guidance was construed to be a service for youngsters who were experiencing social adjustment problems, academic difficulties, or both. It was, in effect, a resource of a remedial nature.

Then, as far back as the 1930's, it began to be recognized that guidance should be a service and a function of the school that helped all pupils live effectively in school; to keep children in top condition so that they could fully profit from instruction.[11] Guidance was "coming of age" as a special area and recognizing that it should serve to prevent problems rather than to repair flaws in children's total adjustment to school and life. Most recently, the trend has been to interpret guidance even more broadly as a continuous function of the classroom teacher, who, in cooperation with the guidance specialist or counselor, assists children "in securing the knowledge and skills needed in making adequate choices, plans, and interpretations essential to satisfactory adjustment in a variety of areas."[12]

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[11] See F. F. Bradshaw, "The Scope and Aim of a Personnel Programs," *Educational Record,* 17:121 (January, 1936).

It seems clear that trends in the professional guidance field have been compatible with broad movements in elementary education, both guidance and elementary education being increasingly aware of a need to accept considerable responsibility for the "whole child" rather than for his intellectual growth without reference to his total development in becoming an effective participant in society. Yet, paradoxically, some of the very qualities that make trends in guidance praiseworthy have created complications for the evaluation and improvement of guidance in the elementary curriculum!

If it is the purpose of guidance to help children make a satisfactory adjustment to school and to life as a whole, if it is its purpose to help the young person "grow in his power to give point and direction to his own life, to the end that he may gain richer personal experiences while making his own unique contribution to democratic society,"[13] then what distinction can be drawn between *guidance* and *education* as a whole? It has also been said by guidance workers that guidance is good teaching and that good teaching is guidance. This sort of overgeneralization is of little help when one attempts to appraise the role of guidance as a special service in elementary education. If taken literally, it suggests either that no guidance specialist or consultant is needed (since all good teachers are guidance workers) or that no teachers are needed (since guidance is teaching). This is patently absurd; yet the fact remains that one of the jobs to be done in an evaluation of guidance services, at least at the elementary level, is to distinguish the role of guidance as a special area in its own right.

CRITERIA FOR JUDGING THE GUIDANCE PROGRAM. An application of educational values to guidance suggests that it has a twofold role in the grades: (1) it consists of a highly professionalized service available to teachers, children, and parents through a guidance counselor or director of guidance services; and (2) it is a function of the classroom teacher performed in his daily contacts with children, parents, and other teachers. Stated in another way, a distinction may be drawn between "guidance," the *noun* describing a service, and "to guide" and "to counsel," the *verbs* referring to the process and activity of working with children in such ways as will enhance their effectiveness as human beings.

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[12] Glenn E. Smith, *Principles and Practices of the Guidance Program* (New York: The Macmillan Co., 1951), p. 6.

[13] D. W. Lefever, A. M. Turrell, and H. I. Weitzel, *Principles and Techniques of Guidance* (New York: The Ronald Press, 1950), p. 3.

Let us now examine two sets of criteria, one for judging guidance as a service, the other for gauging the guidance activities of the teacher in his daily relationships with children.

(1) Criteria for studying effective guidance services:

> The elementary guidance counselor has a professional education major plus teaching experience, reinforced by advanced work in guidance and in psychology.
>
> The counselor's background permits him to work with equal skill in psychological and achievement testing, as well as to use various related evaluative tools (see Chapter 6).
>
> The counselor works effectively with parents, with children, with his colleagues, and with medical specialists in the community.
>
> The counselor sees his work in guidance in perspective, with regard to other special fields and services and to the classroom program at each grade level.
>
> The guidance program contributes to the planning and execution of such in-service activities as pre-opening school conferences devoted to the study of children, their potential and actual problems, and procedures through which such problems can be anticipated, decreased, and remedied.
>
> The program provides a professional library of books treating guidance, as well as such resources as easily available and adequate pupil records, samples of tests, and files of instruments for specialized child study.
>
> The responsibilities of the guidance staff are clearly understood, and there is ample time for guidance personnel to divide their activities among conferences with parents, teachers, and children, testing and evaluation, record-keeping, creative planning activities, and professional study.
>
> Guidance activities and records are coordinated throughout the elementary school and well articulated with the secondary school program.
>
> The board of education and the community as a whole are

kept informed as to the nature of the guidance program and are invited periodically to share in planning its future improvement.

(2) Criteria for appraising the teacher's child-guidance activities:

The teacher has a sound grasp of the learning process, which is reflected in his teaching methods (see p. 118 f.)

The teacher understands and applies principles of child development in his daily contacts with children.

The teacher plans effectively with children the general development of the experiences they share (see criteria for the selection of subject matter, pp. 120-121).

The program developed in the classroom distinctly reflects the highly individualized needs, purposes, interests, and abilities that must be recognized in order meaningfully to guide human development.

The teacher consults with the guidance counselor and engages in self-education in order to understand, use, and interpret the techniques and instruments that lend themselves to understanding children in the school situation and in the cultural milieu.

The teacher cooperates in the process of establishing, maintaining, and using the records and reports that follow each child through school.

The teacher recognizes in subject content an indispensable ingredient in guiding child development, but simultaneously he recognizes that each child builds *his own* content interpretations in his own way and does not expect every boy and girl to learn the same things in the same way at the same time.

As needed, the teacher is active in initiating and participating in parents' study groups that help them to understand children's problems as they mature and to cooperate with the school in minimizing such problems.

In consultation with guidance personnel, the teacher uses the resources of community agencies that serve children.

The teacher establishes and continually clarifies his understanding of the contributions that are made of child guidance—broadly conceived—by: the school nurse, the dentist, and the physician, guidance counselors, and teachers in special fields.

Guidance as a special service is increasing both in importance and in effectiveness. Also, of all special fields and services, it is most closely associated with the evaluative activities designed to improve the elementary curriculum. It behooves elementary teachers and staff members to work together very closely in the processes of curriculum appraisal, with growing awareness of the fact that good teaching involves child guidance. But the good guidance *program* is the offspring of sensitive teaching *and* the professional guidance services of well-prepared consultants who are available to supplement and enrich the teacher's work.

▪ The Elementary School Library

As noted earlier, library services were chosen from among the various special services that might have been selected for appraisal because of their prevalence and because they can contribute so much to the child's progress in school through curriculum enrichment. An evaluation of the school library as an important element in the development of better curriculums suggests a more active role for both library materials and the librarian than they have fulfilled in most schools during years past.

Although it may, at first, seem a flight of fancy, the writers' values suggest that libraries for tomorrow's schools may very well become an expanded teaching resource center in which have been combined not only books and other conventional library resources but many other types of multisensory teaching aids. The library as a service center implies either additional college preparation or on-the-job training to equip the librarian to handle such equipment as projectors and tape recorders in addition to his usual tasks. An alternative is the development of a cooperative relationship between the librarian and the director of audio-visual teaching aids, who might share adjacent quarters in the proposed joint-service center. One or the other of these persons, depending upon his qualifications, presumably would be the director of the over-all teaching aids program.

QUALITIES OF THE LIBRARY SERVING AS A RESOURCE FOR CURRICULUM IMPROVEMENT. The librarian is the heart of any good elementary library. As the writers appraise this function, his role should be that of a professional member of the teaching staff rather than that of a custodian of books and materials. The librarian's educational responsibilities should include: (1) planning teaching-learning activities with teachers and children and supplying needed resources for carrying out a project; (2) providing needed materials for classroom library shelves; (3) periodically sharing stories with children at a story hour; (4) creating a warm, friendly atmosphere in the school library-teaching aids center, which is at the same time interesting and even intellectually exciting because of the fresh and inviting way in which materials are presented; (5) sharing in curriculum evaluation and especially in the preparation of curriculum guides; (6) coordinating the use of all library teaching aids and of audio-visual materials (in cooperation with the director of audio-visual materials in larger school districts).

General qualities of and facilities for the good library program, capable of a major contribution to the curriculum in an elementary school of 500 to 800 pupils, include:

(1) A large, comfortable, and fully shelved and equipped room, capable of accommodating at least one class, with space left over in which students from other grades may work;
(2) A librarian's office workroom;
(3) A central collection of books, including many current titles, and magazines;
(4) Provisions for rotating classroom library book collections related to projects under way in each grade;
(5) A schedule for the librarian that permits time for work with teachers and children in addition to "desk duty" in the library itself;
(6) Coordination of the conventional library functions and the use of other teaching aids, either under the librarian's direction in smaller schools or developed in consultation with audio-visual personnel in larger districts; coordination of the school library program and collection with the public library;
(7) Story hours for sharing books with children;
(8) Periodic book exhibits or "book fairs" to call attention to available library resources;
(9) Development of a book collection that is geared to the curriculum handbooks or guides prepared by the faculty, as well as to general leisure-time and educational books for children;
(10) Analysis and classification of available books, both in terms of their topics and reading level and by the authors' names;
(11) Planned instruction of children in library use and "library manners," and a policy of encouraging children to use library resources on their own initiative; and

(12) A collection of up-to-date professional books and periodicals for teachers as well as simply written and suitable reading material in education and child-development for parents.

▪ Programs to Meet the Special Needs of Rapid-, Normal-, and Slow-achieving Children

An especially controversial aspect of elementary education and the curriculum is the matter of special programs or services for children who learn quickly and who learn slowly. Let us first consider able and gifted children.

ARE WE "BRAIN WASTING" IN ELEMENTARY EDUCATION? One of the critical questions of the day is what special provisions, if any, shall be made for children of high ability in the elementary school. It has been pointed out, quite properly, that our nation cannot afford the luxury of squandering so important a resource as intellectual ability.[14] Yet, while most people accept this statement as axiomatic, there is no majority agreement as to the means of developing, conserving, and utilizing our national brain power.

Whatever decision may be reached with respect to the program provided for the rapid-achieving or gifted child, one thing seems certain: the decision will also influence the normal- and slow-achieving children in public education. If the able child is (1) segregated in a special class, (2) kept with his age-mates, or (3) double-promoted (or accelerated), it will influence the school life of *all* children. For example, if the decision is made to segregate bright children, the vitality of their contributions is removed from the classroom in which the less able presumably would remain, and the nature of the learning situation almost inevitably would be modified as a result.

When an elementary school staff deliberates the issue of whether or not a special program shall be established for children of divergent levels of achievement, a likely initial question for discussion is whether the elementary school *is* failing to challenge the gifted. Data presented in Chapter 4 strongly suggested that children are mastering more subject matter at an earlier age today than was the case 35 or more years ago. Despite alarms, there is little real evidence to suggest that the *mass* of boys and girls in the first eight grades are less well educated than their parents or grandparents, and there is considerable evidence to indicate that they are better prepared academically (see pp. 103-105). The fact that *most* children apparently are learning more content material sooner does not automatically establish the fact that boys and girls of high ability *also* are doing as well as they might be doing, however.

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[14] For a representative statement, see Admiral H. G. Rickover's article, "Let's Stop Wasting Our Greatest Resources," *The Saturday Evening Post,* (Mar. 2, 1957).

Before reaching a conclusion as to whether there shall be special grouping, special instruction, or special services for academically prone or gifted children, the curriculum evaluator may wish to review such questions as these:

(1) Have we made a diligent effort to ascertain the distribution and nature of intelligence and achievement among the pupils?
(2) Have we checked performance to determine how our children of high I.Q. are faring in achievement? (This involves not only identification of the gifted but applying a correction formula[15] to find out whether the high-I.Q. children are working at capacity.)
(3) Do we know how adequately our bright children have fared in social adjustment and in developing emotional poise? (Do they seem to be socially accepted, happy, and contributive members in their present groups?)
(4) Does the size of our school permit a reorganization of pupils for instructional purposes that might better help the able child without harm to the program provided for normal- and slow-achievers?
(5) Is any sort of ability grouping likely to provide instruction superior to that now under way in the regular classroom? That is, have we a proposed instructional program that promises to be significantly better for a group segregated in terms of mental ability than the program which the high-I.Q. children are now experiencing, and which is dependent upon special grouping for its success?
(6) Have we weighed the effect of segregation of the high-I.Q. child upon the total school population? Will the ability-grouping approach further impede the slow-achievers by making even more conspicuous the fact that they are slow?

Careful discussion of such questions as the six listed above almost always helps the evaluator to clarify his thinking, both with respect to the controversy over how to help the rapid-achieving child and with respect to curricular and organizational changes yet to be designed to help him fulfill his intellectual promise. In most school situations, it seems wise to keep the bright child in a heterogeneous group for four reasons:

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[15] Certain achievement tests include in their manuals directions for adjusting achievement test scores in order to ascertain whether pupils are making scores in keeping with their I.Q.'s.

(1) It will enhance his experience in leadership to contribute to group planning and activities; this is usually diminished, relatively, by double promotion or segregation.

(2) In the nation as a whole, relatively few children in a thousand really approach the *highly* gifted level; hence there are often too few children to be segregated in many a school district.

(3) It will keep the bright boy or girl in a situation involving social relationships with age-mates.

(4) Academically prone children are usually identified and generally can be adequately challenged by a capable teacher—at the *elementary school* level, at least—in the regular classroom.

Any appraisal of programs for the "intellectually superior child" must also consider that most children so designated are "bright" (I.Q. 115 to 135) rather than in the genuinely gifted or in the genius category. The true genius is so rare that the shaping of his development and emerging career is a unique challenge to the school, not a matter to be handled merely by grouping him with rapid-achievers.

ARE NORMAL CHILDREN NEGLECTED? So much attention has been paid to the rapid- and to the slow-achiever in recent years that there is some likelihood that curriculum planners will neglect the obvious point that most children are normal—that is, that 60 to 80 percent of elementary children are clustered around the median or average level in achievement, intelligence, and social adjustment. They grow at different rates, of course, and may temporarily deviate a good bit from norms of performance and behavior, but essentially they fall, during most of their school and life careers, within the wide range of "normal."

In the individual classroom situation, when children are grouped heterogeneously, often too much of the teacher's time is invested in helping the slow-achiever because his academic needs or lacks are so obvious. This tendency to spend an undue amount of time with the least competent boys and girls, academically speaking, can be improved somewhat if the classroom teacher deliberately plans his work to stress the individual needs of normal or near-median youngsters. The paragraphs below, though directed toward work with the slow learner, also have implications for the time that might be spent with pupils who are of average ability.

DO SLOW-ACHIEVERS RECEIVE TOO MUCH OR TOO LITTLE OF THE TEACHER'S TIME? While it is impossible to cite accurate data, there is reason to believe that slow-learning children receive the attention and absorb the time and energy of the teacher far out of proportion to their numbers. It is not the intent of the writers to advocate a callous "sink-or-swim" policy toward children who have difficulty in coping with subject matter. Nevertheless, there is reason to ask if a great deal of time is spent *needlessly* on slow-achievers for the following reasons.

Some teachers fail to recognize (1) that some children are slow maturing and neither can nor should be pushed toward group achievement norms until they are more mature and ready; (2) that there should be *individual* rather than *group* standards of achievement, and that it is not necessarily to the teacher's discredit when some children in a class group lag in performance; and (3) that the cultural environment of some children has been so deficient that they may need, at least for the time being, a rich diet of meaningful group experiences rather than a bare-bones diet of time-consuming, individual, tutorial drill to help them achieve more adequately in the long run. Finally, (4) there are those teachers who are loath to admit that some children are not richly endowed with ability, and who are slow to recognize that no amount of time and energy taken from the classroom group and lavished on such inherently slow-achievers can significantly speed up their progress.

To sum up, the slow-achiever is entitled to help from which he can profit at a given time—but not at the expense of his classmates. Also, the overly conscientious teacher will do well to ask himself if he is expecting too high a level of achievement, too soon, from certain children—hence wasting time by trying to help them blossom academically before they are even ready to sprout, in response to their slow inner patterns of growth toward maturity.

Special programs, provision, or services for the academically prone and for the slow-achiever deserve careful study and appraisal, but such children are not well served by hasty or ill-conceived decisions on policies that pull them away from heterogeneous grouping.

A great deal can be done within the classroom through long-range curriculum planning and through daily pupil-teacher planning to adapt learning experiences to human individuality. Both enrichment of experience for the capable and remedial help for the academically immature should be thoroughly explored and exploited before a faculty concludes that more basic program modifications are desirable.

▪ Summary

The nature and growth of special fields in elementary education were reviewed in Chapter 13, and the problem of curriculum crowding was summarized. Then the challenging problems of cooperation between classroom teachers and teachers in special fields were identified and proposals made for improving relationships among such staff members, so as to attain the best possible contributions from all of them. Qualities of good programs in special fields were described, and it was pointed out that there remains an important role for the consultant or specialist in the elementary school today.

Because of the great variety of special services found in elementary education, three services or special programs were singled out as representative and important: guidance programs, library services, and provisions for children of varied ability—from the academically prone to the slow-achiever. Criteria were proposed for evaluating the guidance services provided in the elementary school and for appraising the library resources.

The concluding pages of Chapter 13 suggested some of the subtle and complex problems involved in planning school programs so as to serve effectively the superior-, normal-, and slow-achieving child.

Discussion Questions and Suggested Activities

1. Discuss as a group the *three* special fields and/or services you would recommend for a small elementary school district (from 500 to 2000 pupils) if available funds would permit no more than three to be introduced. Why would you select *these* three?
2. What are some of the daily guidance activities or functions of the teacher who assumes responsibility for the social and emotional development of children?
3. Under ideal conditions, what are some of the provisions you would like to recommend (1) for helping the gifted child, (2) for aiding the slow achiever in the elementary classroom, and (3) for helping the normal achieving child?

Selected and Annotated Readings

1. Barr, John A., *The Elementary Teacher and Guidance.* New York: Henry Holt & Co., 1958.

   The role of both teacher and specialist are presented in this volume on guidance and valuable proposals for a program with vitality are made.

2. Cassidy, Rosalind, *Curriculum Development in Physical Education.* New York: Harper & Bros., 1954.

   A comprehensive overview of the foundations and content of physical education in both elementary and secondary schools.

3. de Francesco, Italo L., *Art Education: Its Means and Ends.* New York: Harper & Bros., 1958.

   Handsomely illustrated, this book is recommended for its well-rounded presentation of philosophy, methods, and descriptions of art experiences at the elementary and secondary levels.

4. Keiler, Manfred L., *Art in the Schoolroom.* Lincoln: University of Nebraska Press, 1951.

   A pleasant little guide for the classroom teacher. Explicit suggestions and methods for artwork are given, although the artist carefully points out that they are to be adapted by the teacher rather than followed as patterns.

5. Larson, Leonard A., and Lucille F. Hill, *Physical Education in the Elementary School.* New York: Henry Holt & Co., 1957.

   A concise statement regarding elementary school practices, plus 171 pages of suggested activities (grades 1-6) that teachers will find very useful in planning the physical education program.

6. McDaniel, H. B., and G. A. Shaftel, *Guidance in the Modern School.* New York: The Dryden Press, 1956.

   A basic treatment of the total guidance program. Useful as a general reference.

7. Sheehy, Emma D., *There's Music in Children,* rev. ed. New York: Henry Holt & Co., 1952.

   A delightfully illustrated and well-written book that, with great success, endeavors to show how music can be woven into the school curriculum.

PART III

Educational Leadership and Educational Values

14

An Evaluation of Educational Leadership in Curriculum Development

Concepts of leadership in elementary education have been revolutionized since 1920. During the intervening years, there has been a movement away from the viewpoint that superintendents, principals, and supervisors were to direct instruction and to rate teachers, to plan the curriculum (or to delegate to specialists the planning of the curriculum), and to "have all the answers" with respect to how a school should be run.

By the early 1950's, it was generally accepted that one of the great attributes of educational leadership was its ability to help teachers to free themselves from their timidities, uncertainties, and value conflicts, so that they could make their best possible contribution to the group of which they were a part and so that they could find within themselves the motivation to work creatively with children. In brief, many educators have come to believe that the highest type of leadership resides in group interaction through which the individual contributes to the successful solution of educational problems confronting him and his associates on the faculty.

The present chapter attempts to identify and to appraise the *meaning* of genuinely democratic leadership in education, the *nature* of such leadership, and some *misinterpretations* of democratic participation in education. The development of leadership skills in children and the encouragement of parental participation in school activities also are reviewed.

■ Democratic Values as the Foundation of Effective Leadership

Aristotle wrote that "liberty and equality . . . will best be attained when all persons alike share in government to the utmost."[1] What the Greek sage said of government also seems to be true when applied to the "governing" of education. A broad base of democratic participation seems to assure the liberation of the best thinking of all individuals and recognition of the advantages when there is an equal opportunity for all persons concerned with the schools to contribute constructively to their improvement.

THE MEANING OF DEMOCRACY IN EDUCATION. Democracy is the most highly developed form of human relations that man has conceived and attempted to practice. Fundamentally, it is a way of life that is centered on the worth and dignity of human beings, which guarantees them the privilege of freely developing their individual capacities. For centuries, the ideals and values inherent in democracy have inspired the loyalty and faith of men who desire to be free and who cherish the privilege of governing themselves.

The Educational Policies Commission has defined democracy as the finest of all social faiths, one which challenges men and women to understand and to support the following articles of faith in their daily living:[2]

> *First,* the individual being is of surpassing worth.
> *Second,* the earth and human culture belong to all men.
> *Third,* men can and should rule themselves.
> *Fourth,* the human mind should be trusted and should be set free.
> *Fifth,* the method of peace is superior to that of war.
> *Sixth,* racial, cultural, and political minorities should be tolerated, respected, and valued.

These articles of democratic faith have their origin in, and find their direction through, the thoughts and actions of children, youth, and adults. The strength and defense of democracy are based, therefore, on the fiber of the mental and moral behavior of each of our citizens.

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[1] In his *Politics,* Book II.

[2] Educational Policies Commission, *The Education of Free Men in American Democracy* (Washington, D.C.: National Education Association, 1941), p. 33.

At a time when the democratic way of life is being threatened by authoritarian states, it is imperative that Americans of all ages, who enjoy the privileges of a free society, reaffirm their belief in democracy and accept the duty to defend it by intelligent thought and action. Industrial power, economic wealth, and military might can be used effectively by free people to protect the opportunity to live democratically. But it is in their daily human relations that citizens determine the ultimate victory or defeat of the democratic way of life. Democratic faith must be more than verbal allegiance; it must be the goal and the dynamic source of energy for all people who respect the worth of individuals and who believe in the right of human beings to govern themselves. The real strength of democracy, both as a faith and as a way of life, lies in the quality of the mental and moral behavior of its citizens and in the wisdom of the decisions to which this behavior leads. Democracy has no other equally reliable defense.

EDUCATING CHILDREN TO EXTEND AND TO DEFEND DEMOCRACY. The challenge to teachers during the second half of the twentieth century is definite and clear.[3] The education of children in the ways of democratic citizenship is the major objective of the schools. Democratic faith and loyalty, unlike physical possessions, cannot be inherited. It is, therefore, the function of the schools to provide learning experiences that enable the children of each generation to rediscover, to appraise, and to accept the values that give meaning and purpose to American democracy. They must become compelling ideals to live by. It is also the obligation of educators to examine the policies, requirements, and practices of each school with a view to determining the extent to which they exemplify democracy in action. The Educational Policies Commission, after careful study of the relationship between education and democracy, issued the following recommendation, which deserves the active support of all persons associated with the public schools:[4]

> The American people should fashion an education conceived in the spirit of the articles of democracy and devoted to its defense and further realization—an education designed to prepare children to guard, to live in, and to develop a free society. More particularly they should fashion an education frankly and systematically designed to give to the rising generations the loyalties, the knowledge, the discipline of free men. In a word, the

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[3] See C. W. Hunnicutt, ed., *Education 2000 A.D.* (Syracuse, New York: Syracuse University Press, 1956), *passim*.

[4] Educational Policies Commission, *op. cit.*, p. 50.

American public school, through its life and program, should proceed deliberately to foster and to strengthen all those physical, intellectual, and moral traits which are the substance of democracy—to incorporate into the behavior of boys and girls and youth the great pattern of democratic living and faith.

The elementary school program needs to be designed so as to educate children effectively for democratic living. The worth of each child should be recognized in the process. His personal integrity must be developed and protected. The activities and instructional methods adopted can best be appraised in terms of their value to children as means to the discovery and acceptance of the basic tenets of democracy. The leadership of administrators and teachers also needs to be evaluated with regard to its contribution to democracy. Its success or failure should be gauged by the extent to which leadership provides, through cooperative endeavor, a desirable living and learning environment. By "desirable" is meant a living in which children will discover and be motivated to apply the following loyalties in their personal and social living:[5]

> *First,* to himself as a human being of dignity and worth.
>
> *Second,* to the principle of human equality and brotherhood.
>
> *Third,* to the process of untrammelled discussion, criticism, and group discussion.
>
> *Fourth,* to the ideal of honesty, fairmindedness, and scientific spirit in the conduct of this process.
>
> *Fifth,* to the ideal of respect for and appreciation of talent, training, character, and excellence in all fields of socially useful endeavor.
>
> *Sixth,* to the obligation and right to work.
>
> *Seventh,* to the supremacy of the common good.
>
> *Eighth,* to the obligation to be socially informed and intelligent.

These eight loyalties, it may well be added, require that the teachers' school and community environments be democratic.

THE SCHOOL AS A DEMOCRACY IN MINIATURE. The elementary school usually provides children with their first contact with organized education. When they begin kindergarten or first grade, they are introduced to a social environment quite different in many ways from their home life.

If, during their years in school, boys and girls are to make satisfactory progress in discovering personal worth, in learning how to live democratically with others, in acquiring functional subject matter and skills, and in developing a readiness to examine the consequences of their thought and action, they must do more than merely read and talk about the ideals and values involved in democratic human relations. They must come to discover and to understand the personal and social meaning of democratic cooperation. They can do this only to the degree that the school activities enable them to learn this meaning through personal and group experiencing.

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[5] *Ibid.,* p. 55.

The quality of the leadership in school, and in the activities it guides, determines whether or not children develop democratic or undemocratic ways of interacting with other persons. This is an exceedingly important point to bear in mind when evaluating educational leadership in curriculum development. Children who, because of faulty teacher leadership, feel insecure or who are told what to do at all times are placed under a severe handicap. The same is true of children who have little opportunity to participate in cooperative planning or decision-making, who are afraid to express their real needs or interests, and who are caused to feel inferior because they cannot conform to unreasonable, arbitrary grade standards. Many never succeed fully in sensing the meaning of personal worth and in understanding the human values in applied democracy. For the wholesome development of maturity, children need to interact with a quality of teacher leadership that motivates them to share in planning, executing, and evaluating class activities. They also must be helped to make decisions after the "give and take" of group discussion and to accept responsibility for the consequences of their thoughts and actions to other individuals. The quality of personal and social living experienced in school contributes more to the learning of democratic values than the quantity of subjects and skills acquired.

Each elementary school, regardless of its organization, is a small community or society. If it is to serve children and democratic living, it must be planned and administered as a genuine democracy. Administrators and teachers, as one outcome of a sound general and professional education, should and must understand the ideals and values involved in democratic citizenship. They should comprehend the threats inherent in aggressive movements of totalitarianism in many parts of the world today. They should, finally, interpret education as the most effective means of developing minds competent to defend democracy.

THE MORAL NATURE OF DEMOCRATIC EDUCATIONAL LEADERSHIP. Administrators and teachers are the most important elements in determining the actual nature of the school programs that are provided for children. They are charged, by world conditions today, with the task of appraising their educational leadership to determine the degree to which the objectives, methods, activities, and requirements of the school conform to the principles of personal and social democracy. Designing an elementary school program that will give children the opportunity to learn the values and loyalties inherent in democracy by experiencing them in all their school activities is a *moral* responsibility. It is a responsibility that cannot be evaded by educators without serious consequences to children, to society, and to the advancement of democratic human relations.

John L. Childs sharpened the moral concept in his *Education and Morals* when he wrote that the term *moral* refers to the fact "that *choices* among genuine life alternatives are inescapably involved in the construction and in the actual conduct of each and every educational program. These choices," he continued, "necessarily have consequences in the lives of the young, and through them in the life of their society. Viewed from this perspective, education undoubtedly ranks as one of the outstanding moral undertakings of the human race."[6]

■ Administrative and Faculty Leadership in Creative Curriculum Planning

THE MEANING OF SOUND EDUCATIONAL LEADERSHIP. Leadership is concerned with facilitating the process of working together successfully and harmoniously to accomplish certain group objectives.[7] The values and techniques employed in the leadership process in curriculum development are fashioned by the concept of democracy and education accepted and acted upon by the person or persons controlling this process.

Leadership is authoritarian in nature when it is used arbitrarily by one or a few persons to control the thoughts and actions of others. This type of leadership is concerned more with efficiency, mechanics of organization, and quantity production than with discovering and developing the capacity of leadership in other individuals. The authority to plan, to assign, and to appraise is retained by the leaders.

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[6] John L. Childs, *Education and Morals* (New York: Appleton-Century-Crofts, Inc., 1950), p. 20.

[7] See G. Robert Koopman, Alice Miel, and Paul Misner, *Democracy in School Administration* (New York: D. Appleton-Century Co., 1945), pp. 38-75.

The members of the group presumably are "cooperative" in the degree that they carry out the plans or decisions of the leader. Since they do not share in initiating the plans, they do not accept responsibility for the consequences. Often they do not understand the reason for what they are called upon to do, and, as a consequence, they are incapable of acting creatively or even intelligently. Authoritarian leadership, by its very nature and function, also prevents the development of a feeling of identification with the work to be done by all members of the groups, and poor morale is one of the consequences. Its superficial or simulated efficiency is offset by its failure to develop mutuality of purpose and action.

Democratic leadership is a cooperative process that respects the worth of each member, and that gives to all members of the group the opportunity to share in studying the problems and to formulate plans for action.[8] *An impressive value of democratic leadership is its utilization of the abilities of all members of the group in arriving at a course of action that could not have been achieved so successfully by any one member alone.* Persons participating in democratic leadership activities are motivated to express their suggestions and criticisms, to establish a feeling of identification with a given group project, and to accept responsibility for its successful completion. The primary purposes in democratic leadership are:

(1) To discover and develop individual capacities;
(2) To motivate friendly, yet frank, discussion;
(3) To develop mutual respect for the ideas of others;
(4) To show that authority is an element in the group process of leadership rather than in a person;
(5) To reach a decision that represents the pooling of creative ideas;
(6) To create an awareness of mutual responsibility for executing and appraising group decisions;
(7) To create group insights into problems, so that each individual can function with efficiency and with independence; and
(8) To facilitate interaction among group members, so that a consensus or adequate working compromise is reached.

LINE-AND-STAFF LEADERSHIP IN SCHOOL AFFAIRS. For many years, the tradition of organization and administration in the school has been authoritarian.[9] The authority to run the school was delegated by the board of education to one presumed to be an expert—the superintendent of schools. The administrator accepted the responsibility of formulating educational policy, making educational decisions, planning the objectives and scope of the program, and establishing the criteria to be used in evaluating the work of teachers and other school personnel. Leadership was conceived as a process of planning, directing, and appraising the work of the group.

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[8] See *Cooperation—Principles and Practices,* Eleventh Yearbook of the Department of Supervision and Directors of Instruction (Washington, D.C.: National Education Association, 1938), pp. 18-32.

This approach to educational leadership failed to discover and to utilize the human resources of teachers. At the same time, it prevented staff members from developing a feeling of responsibility for improving the objectives and practices of the school. A psychological gap, therefore, developed between the administrators and teachers and prevented frankness and clarity in communication.

Teachers who experienced authoritarian leadership found it natural to transfer and practice this type of leadership with the children in the classroom. It is significant that for many years administrators and teachers failed to recognize that this arbitrary kind of direction violated the principles of democracy and thereby prevented the school from being genuinely effective in educating children for meaningful participation in democratic citizenship.

THE "LEADERSHIP OF IDEAS." Recently, more and more school executives have recognized the value of participation by teachers, children, and parents in planning the school's program. Under this interpretation, teachers are expected to be professional co-workers. The administrators and teachers combine their talents to provide leadership and service. Even though the authority for administering the school is delegated by the board of education to the superintendent, he shares this responsibility with others. In an increasing number of school systems today, the authority for administering the school program has become a cooperative endeavor that utilizes the abilities and personal resources of the board of education, the superintendent, the teachers, the children, and the parents.

Democratic leadership provides a means for all members of the school group to participate directly or indirectly in formulating educational policy, in determining educational objectives and practices, and in making educational decisions. The process recognizes the value of individual contributions and enables each person involved to develop, through participation, a feeling of identification with and a responsibility for the success of the school program.[10] Authority is accepted as residing in the process of group study and decision-making rather than in the individual. The need to delegate to one or more persons certain responsibilities for carrying out group decisions is recognized as democratic in nature, since the group retains control through the right to review and to redirect educational policies. Democratic leadership is, therefore, a creative group process in human relations that places service to the welfare of the group above special interest and selfish purpose.

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[9] See *Schools for a New World,* Twenty-fifth Yearbook of the American Association of School Administrators, p. 157.

In a sense, democratic leadership in curriculum development may be thought of as the "leadership of ideas" rather than as the leadership of persons of rank or status in a school system. In the process of curriculum change, the *ideas* of all persons concerned should have an opportunity for expression, and the merit of a given idea or proposal should have a full and fair opportunity to determine the nature of the decisions that are reached. In many cases, the views of the mature, experienced person may tend to prevail, but only if they are the demonstrably best ideas available; and, in any case, the ideas of all parties in planning should have an equal opportunity to prevail if they have *merit*. Thus ideas, rather than the status of the participant in the process of planning, tend to determine the outcomes.

STAFF PARTICIPATION IN DECISION-MAKING. In a school or school system where the faculty is relatively small, the administrator and teachers may meet as a group to plan, execute, and evaluate policies and practices. Procedures also can be developed in smaller, more intimate school districts to encourage children and parents to accept responsibility for designing and directing many phases of the school program.

In larger school systems, the single group plan is difficult to employ because of the unwieldy size of the staff. A representative group commissioned to act with and by the consent of the total group may be selected to function as an administrative faculty council.[11] Under such a plan, various divisions in the system often elect their representative to the council. It is no longer unusual to find such matters as curriculum policy, standards for the selection of teachers, criteria for evaluating teaching, the school budget, and other matters relating to the welfare of faculty and children being referred to the council for study and recommended decisions. The representative of each division most commonly serves as a communicating agent in bringing problems from his division to the council and in informing the members who elected him of the problems being studied and the decisions proposed by the council. All members of the school staff, by their participation in this democratic process, play the role both of the leader and the service agent. Thus they establish a feeling of professional identification and responsibility for the success of the school program.

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[10] See L. Thomas Hopkins, *Interaction—The Democratic Process* (Boston: D. C. Heath & Co., 1941), pp. 387-425.

[11] See *Group Planning in Education*, Eighteenth Yearbook of the Department of Supervision and Curriculum Development (Washington, D.C.: National Education Association, 1945), pp. 121-128.

Teachers learn the meaning of democratic cooperation through active participation in the process of cooperative planning, evaluating, and executing. They interpret their role as that of working with and for the administrator, while he, in turn, works with and for them. A quality of communication is established that both stimulates and facilitates friendly and frank exchange of ideas and information for improving the nature and purposes of the educational program. This experience in democratic leadership helps teachers become better qualified in applying the principles of democratic procedures to their work with children in the classroom. Teachers who are free to participate in school affairs seem more likely to accept teaching as a profession and to recognize the schools as society's most effective means for helping children to discover the ideas, values, and duties essential in democratic citizenship.

THE PRINCIPAL'S LEADERSHIP AND ITS INFLUENCE ON THE BEHAVIOR OF TEACHERS. The concept of educational leadership reflected in policies followed by the elementary school principal exerts a powerful influence on professional interaction among teachers. It also conditions the guidance activities of teachers with children in the schoolroom. In schools where the principal assumes that his office is the center for planning, directing, and evaluating the work of teachers and children, teachers have little opportunity to develop a feeling of professional responsibility for the general welfare of the school. Frequently each classroom operates as a separate unit. The professional status of the teacher is measured primarily by his success in carrying out the policies and curriculum objectives designed by the principal. Teachers learn from experience to interpret their role as similar to that of an employee who conforms to the expectations of an employer or "boss." Principals who practice this concept of leadership may *talk* about the values of democratic cooperation and may urge teachers to apply democratic procedures in the classroom, but their leadership activities convey to teachers a leader-follower concept of human relations inimical to self-direction and to creative teaching.

In some schools—and their number is increasing—the principal interprets his position as carrying with it an opportunity to work with and for the members of the school staff. Administration is accepted by these educational leaders as a means to facilitate successful teaching in the classrooms. The teachers are given encouragement and are helped to devise means for everyone to share in formulating educational policy. This implies general participation in determining administrative practices, as well as in making educational decisions related to curriculum practices and requirements. As they experience motivation and freedom to practice democratic cooperation, teachers find it immeasurably easier to share similar opportunities with children. The school environment thus rises to a higher level of democratic living and learning under the guidance of an insightful principal.

Supervision, in a democratic school, is a process of cooperatively studying the needs and problems of teachers and children.[12] Teachers welcome and invite the professional assistance of the principal and supervisor in their efforts to improve their understanding of both child development and the implications of educational sociology for classroom practice. They also seek help in order better to appraise their methods of teaching, more fully to enrich the classroom environment, more adequately to evaluate the psychological behavior of children, and better to improve procedures for interpreting the needs and progress of children to parents.

Democratic supervision thus appears as a group process that enables the principal and the supervisor to be of greater professional service to teachers. The quality of professional interaction that emerges in the process should cause the teacher to recognize the competence of administrators and supervisors and to look upon their guidance as a valuable means for improving his own leadership with children.

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[12] See *Leadership through Supervision*, Nineteenth Yearbook of the Association for Supervision and Curriculum Development (Washington, D.C.: National Education Association, 1946), pp. 17-26.

CRITERIA FOR APPRAISING THE QUALITY OF THE PRINCIPAL'S LEADERSHIP. The principal, by the nature of his position, should be one of the most democratically competent members of the school group. His application of the principles of democracy to the process of interacting with teachers, children, and parents should be most effective in helping these individuals to interpret and practice the principles of democratic cooperation themselves. Each principal may find it a constructive experience to appraise his leadership activities by directing to himself such evaluative questions as:

(1) How do I interpret the leadership role of the principalship?
(2) What is my concept of democratic leadership?
(3) How do my leadership activities affect the personal and professional responses of teachers?
(4) In what ways are the teachers encouraged to share in studying, planning, directing, and evaluating the policies and practices of the school?
(5) Do I refer to the school as "my" school or as "our" school?
(6) Do the teachers welcome supervision as a professional service provided by me?
(7) Do my relationships with teachers cause them to feel free to express their needs, their interests, and their criticisms?
(8) Do I try periodically to appraise the outcomes of my professional relationships with teachers, children, and parents?
(9) Am I aware of the fact that each teacher creates, through interacting with the principal's leadership, his own interpretation of the principal's philosophy of educational leadership and acts accordingly?
(10) Do I accept the conviction that the school should be as democratic an institution as any other in the community?

■ Educational Leadership and the Professional Development of Teachers

Schools can fulfill their social service to society in preparing children for democratic citizenship only when the educational program is fashioned in such a way that it seems likely to meet the conditions and trends in contemporary society at home and abroad. Teachers, more than any other persons, create the classroom environment. Therefore, they have a deep and permanent responsibility for improving their understanding of socio-economic problems and trends and their implications for social education in the schools. The progress made by the schools in performing a social service to children and to society is in direct proportion to the nature of the professional growth that characterizes administrators and teachers.

Research and experimentation in various fields of education have increased greatly the scientific "know-how" in teaching. Members of the teaching profession, as they strive to keep abreast of developments in education, find it necessary to examine, through individual and group study, their concept of democratic education. If this is to be accomplished successfully, school workers also must continue to examine their knowledge of child development, their instructional methods, and their values. Values, as was pointed out previously, are of particular importance because they determine the nature of the criteria that school staffs use in evaluating the social significance of their leadership. Schools can progress only insofar as administrators and teachers achieve and sustain the professional growth indispensable to leadership.

Children, the hope and promise of the nation's future, deserve the best leadership that the members of the teaching profession can provide. Alert, competent, and dynamic teachers are the most important means to the attainment of the purposes, activities, and outcomes of public school programs.

APPRAISING IN-SERVICE ACTIVITIES FOR TEACHERS AND PRINCIPALS. The stimulation and maintenance of professional growth of teachers is one of the primary functions of educational leadership. During the past two decades, many school systems have begun cooperative in-service education programs designed to fill the professional needs and interests of the members of the school staff. This movement acquired prestige and deserved recognition through the experimental studies that were carried on by a number of school systems in association with the Commission on Teacher Education of the American Council on Education. Unquestionably, the work this organization did contributed to a widespread interest in support of improved facilities for in-service teacher education.[13]

Universities, colleges, and state departments of public instruction worked cooperatively with local schools in planning, administering, and evaluating such in-service education activities as: (1) the faculty in-service education council or coordinating agency; (2) special study-discussion groups; (3) the educational workshop; (4) special consultant services; and (5) the school conference or institute held prior to the beginning of classes in September. Through the leadership of administrators and teachers, the board of education has recognized the professional in-service program in a number of school systems to be of such value to children and to the community as to justify substantial financial support in the school budget. The programs that have been planned by the faculty with the assistance of administrative leadership have been adapted to the current needs of the schools and to the individual and group needs of teachers. The cooperative nature of this procedure has enabled in-service programs to receive the widespread approval and support of teachers. This is an especially hopeful sign, since enduring professional improvement can be attained only through the consent and the personal efforts of each member of the faculty.

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[13] See Charles E. Prall and C. Leslie Cushman, *Teacher Education In-Service* (Washington, D.C.: American Council on Education, 1944).

The several sections that follow are designed to help the reader appraise some representative in-service education procedures that have promise, both for curriculum planning and as a means of improving the total life of staff members and children in the school milieu.

THE FACULTY IN-SERVICE EDUCATION COUNCIL. The creation of a faculty in-service education council or steering committee has proved, over a period of years, to be a highly effective procedure for initiating, developing, and guiding a program designed to motivate the professional growth of teachers and administrators.[14] The members of such a council are generally selected by the teachers so as to insure representation from among the various teacher groups in the schools. Among the functions that the council can perform for the faculty are:

(1) Conducting periodic surveys to locate curriculum and general problems, topics, and interests that teachers desire to have included in the year's study program;
(2) Preparing a program of professional activities and services for faculty consideration, decision, and adoption;
(3) Establishing suggested committees to undertake the study of approved problems or needs;
(4) Acting as a coordinating agency for the preparation and presentation of special reports and communications; and
(5) Assisting teachers and administrators in the evaluation of the effectiveness of the in-service program.

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[14] See *Group Planning in Education, op cit.*, pp. 121-129.

It is important to note that the program of professional study should be planned by the teachers in consultation with the administrators. This participation is essential for the personal development of staff members. Through their own self-directing committee or council, the teachers become identified with one or more study groups and are encouraged to engage in classroom experimentation. They are likely to be motivated to improve their understanding of educational trends through discussion and reference reading. They are placed in a position from which it is easy to understand and appreciate the committee reports that they or their colleagues, chosen by them, have prepared. Finally, through council activities, the entire staff is drawn into the process of directing and appraising its own in-service program.

The superintendent and principals can give valuable assistance to self-improvement activities by:

(1) Providing professional recognition for teachers and committees because of their achievement;
(2) Arranging a convenient meeting place for group meetings and conferences;
(3) Authorizing that a reasonable number of the activities be held on school time;
(4) Hiring substitutes for a day or two to take the classes of teachers chosen to carry heavy curriculum-planning responsibilities; and
(5) Informing the board of education and other citizens about values of the professional in-service program to teachers, children, and the community. The administration may also provide professional consultants who can work with groups on their questions or problems. This should be done, however, only at the request of the teachers or with their approval.

In many school systems, a curriculum laboratory or professional library has been established to give teachers the opportunity to borrow professional books, to review the reports and curriculum materials that teachers in other systems have prepared, to examine new books and materials that may be useful in enriching classroom activities, and to study the reports and exhibits that have been prepared by individuals and groups in the school system.

CONFERENCES HELD BEFORE SCHOOL OPENS. A number of school systems have adopted, with the approval of the board of education, a planning and study session for school personnel immediately prior to the formal opening of the school year. The length of the conference session or professional institute can vary from two days to two weeks, although some are longer. The faculty usually participates in a program of general sessions and study groups during school hours and sometimes is paid a salary comparable to the *per diem* pay received by the individual teacher during the academic year.

The agenda for this preschool session should be planned cooperatively by the faculty and the administrative staff and, for the most part, should be planned well in advance to avoid a hastily contrived agenda. The objectives of the professional conference may well include such items as the following:

(1) To decide on the nature of problems to be studied during the year;
(2) To organize a study program related to curriculum, methods, or comparable topics;
(3) To provide time for preliminary study of the selected problems and topics;
(4) To assist new teachers to become acquainted with members of the staff, with the school, and with the community;
(5) To develop a friendly working relationship among school personnel, the board of education, parents, and other citizens; and
(6) To foster democratic cooperation among the teachers in the different divisions within the school system.

THE EDUCATIONAL WORKSHOP. Democratic leadership in planning and in conducting educational workshops has helped them to become a popular in-service activity. Since the first workshop was conceived and set up in 1936, hundreds of similar experiences have been provided for teachers by colleges and universities during their summer sessions. In addition, many school systems have organized local workshops, either in the summer or during the school year, for members of the faculty.[15]

Workshops are distinct from conferences or institutes in that they are deliberately planned by participants so as to help them deal with *their own* curricular and instructional problems. The work on these problems is carried on cooperatively by the group. Consultants may help, but they neither initiate artificial problems nor dictate the outcomes of study in which the staff engages. The purposes of the workshops generally are:

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[15] See Maurice E. Troyer and C. Robert Pace, *Evaluation in Teacher Education* (Washington, D.C.: American Council on Education, 1944), p. 327.

(1) To demonstrate in practice the values and principles of democratic living and learning;
(2) To help participants develop skill in using group processes;
(3) To permit teachers to work on their own *real* problems rather than on remote or theoretical ones selected by a professor serving as a consultant;
(4) To develop individual initiative in meeting personal problems;
(5) To provide guidance and resource materials for the teacher's use in attacking his problems;
(6) To help school workers become familiar with evaluative techniques and procedures useful in meeting educational problems;
(7) To stimulate interest in a broad concept of social education; and
(8) To foster improved personal and social relationships among teachers and administrators.

In the workshop, the members learn not by listening but by *doing*. Through democratic-leadership activities, they formulate the workshop objectives and determine plans for individual study and group discussion. They accept and share responsibility for selecting the steering staff, arranging the schedule for general sessions, interest-study groups, individual conferences, and evaluation sessions. Participants in workshops have access to the services of qualified consultants and to materials useful in developing plans and projects related to their classroom or school situations.

The workshop provides experiences that give teachers a meaningful understanding of democratic learning and living, which should lead to significant changes in their methods of teaching. Teachers are helped to sense that the real purposes, content, and applications of education for both adults and children involve self-education and cooperative group action. The workshop also has proved to be a valuable organizational structure for in-service activity. Perhaps its major values are its success in developing democratic interaction among administrators and teachers, in motivating interest and purpose in continued professional learning, and in securing improvements in classroom practices and curriculum materials.[16]

EVALUATING THE LEADERSHIP OF IN-SERVICE ACTIVITIES. Evaluation is an integral part of each in-service activity. A continuing appraisal of the entire program should be made cooperatively by administrators and teachers in terms of the objectives and procedures adopted by the staff for use in the local situation. Such questions as the following may be used to guide an examination of some of the essential characteristics of a democratically planned and conducted in-service education experience:

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[16] See C. Prall and Cushman, *op. cit.*

(1) Have the activities planned been consistent with the principles of democratic living and learning?
(2) Has the faculty accepted responsibility for sharing leadership in planning, in carrying on, and in evaluating the activities?
(3) Have the activities been planned in relationship to both the individual and group needs and interests of the teachers?
(4) Has the administration given effective assistance in supporting, organizing, and sharing in plans for the program?
(5) Have the principals and supervisors cooperated with teachers by giving consultant service and by arranging for a reasonable portion of the work to be carried on during school time?
(6) What recognition has been given to individuals and groups for the contributions they have made to the work completed?
(7) Have the activities helped teachers to secure a better understanding of children and their developmental needs?
(8) How many of the school staff have voluntarily participated in the program?
(9) Has the program contributed to improved professional and personal interrelationships among members of the school staff?
(10) Have the objectives, activities, and accomplishments of the in-service program been properly interpreted to the citizens in the community?

■ Developing the Group Leadership Skills of Children

Democratic beliefs and leadership skills are not inborn qualities in children. They are the result of personal and social maturing stimulated by constructive experience. Children change from egocentric patterns of behavior to democratic patterns of group interaction in the degree that they have the opportunity to experience satisfaction in the democratic process. Research studies by Kurt Lewin and his associates with groups of children in laissez-faire, autocratic, and democratic situations show clearly the differences in the effects of these three "social climates" on behavior.

The children who were in democratic groups were friendly and cooperative. They did better work and possessed better group spirit than the children in the autocratic or laissez-faire groups. Children who were subject to autocratic control were more hostile, more egocentric, more aggressive, and less cooperative.[17]

The behavioral patterns of children are affected for good or for ill by the quality of situations that they have directly *experienced.* At the risk of being repetitive, the authors think it necessary again to emphasize here that elementary schools can teach effectively the values and techniques in democratic cooperation and leadership *only* when children experience them in their classroom and school situations. The school must give children every possible chance to share in planning and directing their school affairs. They are deprived of some of the most important learnings the school can provide when this concept of cooperation is ignored.

BUILDING GROUP-LEADERSHIP POWER THROUGH THE SCHOOL COUNCIL. A school cannot become a genuinely democratic environment for children unless children share in the management of their affairs. The school council is an effective means of developing abilities in leadership and of providing experience in social service. The council in a number of good elementary schools is a duly elected group, composed of one or more representatives from each grade beginning with the kindergarten. In one of the more interesting junior high school councils with which the writers are acquainted, members are elected in social-studies classes. Each class is somewhat analogous to a voting ward in a city. Teachers also serve on the decision-making council but are in a minority. Actual control of policies is vested in the children. Teachers may disagree with, but cannot reverse, decisions made by boys and girls.

Learnings in civics and history are given much of their meaning for the children through this school council, with which they are familiar long before they reach grade 8, where U.S. governmental organization is studied. The children also learn that the teachers of integrity do not manipulate elections or "pull strings" to control legislation. This honesty in working with children means a great deal, because it builds faith rather than cynicism in the procedures and values of democracy.

Through their participation in such a council, children learn to share:

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[17] Kurt Lewin, "Experiments in Autocratic and Democratic Atmospheres," *The Social Frontier* (July, 1938). See also Ronald Lippitt, "An Experimental Study of the Effect of Democratic and Authoritarian Group Atmospheres," *University of Iowa Studies in Child Welfare,* Vol. XVI.

(1) in formulating school policy;
(2) in establishing criteria for school citizenship;
(3) in planning and carrying out socially useful activities;
(4) in scheduling school events; and
(5) in evaluating their school program.

The council and the related classroom organizations provide children with the opportunity to learn parliamentary procedures by *using* them. The children also begin to understand how to elect good officers and how to delegate authority and responsibility. Intraschool spirit and group identification are nurtured, as is the feeling of growing independence.[18] Development in certain characteristics of democratic citizenship is impossible unless the school is organized and administered as a laboratory in applied democracy.

Perhaps the single most valuable contribution of the school council is the fact that it introduces and strengthens children's ability to exercise the *group* leadership skills that are so important in American democracy. The effective council helps participants to learn the practice of planning and working together *now*, so that as mature adults they can perform their citizenship responsibilities effectively.

STIMULATING SOCIALLY USEFUL ACTIVITIES. A school program that is planned for and with children includes types of socially useful work for children to do. Through this work, children develop initiative and responsibility, a sense of service, and a desirable feeling of independence and personal usefulness by participating in such activities as:

(1) Sharing in the management of classroom activities;
(2) Working in the school library;
(3) Planning and assuming responsibility for jobs that need to be done in the cafeteria and on the playground;
(4) Operating a school store and a lost-and-found department;
(5) Sharing in conducting a clothing and toy exchange;
(6) Arranging bulletin boards and display tables;
(7) Serving on the safety patrol;
(8) Planning school assemblies and special events; and
(9) Operating visual education equipment.

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[18] See Department of Elementary School Principals, *Elementary Schools—The Frontline of Democracy* (Washington, D.C.: National Education Association, 1943), pp. 455-485.

Children in the upper grades also have shown great interest and ability in organizing and conducting discussion groups and school forums. Such activities should be an integral part of the school day rather than extracurricular programs. Children's maximum development in social education can be attained only through experience in socially useful activities under democratic guidance.

Many schools include in their program valuable experiences in social service to the community.[19] Children have demonstrated their interest and competence to share in such community services as making population and health surveys, studying traffic conditions, participating in civic campaigns, planning radio programs, and similar types of community citizenship activities. These enterprises are among the most effective means of securing better school and community relationships and understandings. Children develop desired values, attitudes, and skills in dealing more intelligently with life encountered in the school, in the home, and in the community as the school guides them in situations which are a part of real life.

CRITERIA FOR GAUGING THE EFFICACY OF PUPIL PARTICIPATION AND LEADERSHIP IN SCHOOL AFFAIRS. The task of helping children to learn to exercise the skills of group leadership is not an easy one. Children are often accustomed to being told what to do rather than to being challenged to think as a group so as to increase the likelihood that the best possible ideas for meeting their problems emerge from group planning and deliberation. School workers may find it helpful to answer the following questions when judging the success with which the educational program enables children to engage in group processes that help them to plan and act together.

In the individual classrooms:

(1) Is there opportunity for children to plan and direct their learning experiences within the broad design of the curriculum accepted by the faculty?

(2) Does the teacher treat children's ideas with respect when they make suggestions intended to help direct their experience? Does he understand that it takes time for children to think, plan, and evaluate?

(3) Are projects or units planned, at least in part, through group thinking and discussion? And is there planning of culminating experiences or activities at the close of a project?

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[19] *Ibid.*, pp. 370-420.

(4) Is there an elective committee structure in the room, with fair opportunity for all children to accept responsibility on such committees during the year (for example, library table committee, social committee, hospitality committee)?

(5) Are provisions made for participation in school government through the periodic election of classroom officers—and do they have genuine rather than mock responsibilities?

In the school as a whole:

(1) Is there a school council or comparable governmental structure in which children have full responsibility to make policy at their level and to share in making the decisions by which they must abide?

(2) Are there bona fide responsibilities for children, as on safety patrol, in the school store, or through operating visual-aids equipment? Are these responsibilities shared, and, insofar as possible, are they elective?

(3) Is the student body as a whole invited to share in certain activities, such as assemblies or all-school parties that build a family spirit in the school?

(4) Is there a deliberate policy of encouraging children to learn from and share with children at grade levels other than their own? (For example, older girls helping in the kindergarten; simple interclassroom sharing, as when a fourth grade asks a third grade to come to its room to see a simple or creative dramatization of a story.)

Obviously, the questions above apply in different ways at the kindergarten and at the six-grade level, for instance. The intent is to direct teachers' attention to the importance of a warm spirit of respect and friendliness in child–child and teacher–child relationships and to suggest that applied democracy at the elementary school level is a way of living and working together so that leadership is shared by all.

■ Leadership in Parent and Teacher Cooperation

The education of children in every community is the joint responsibility of parents and teachers. The children's first school is the home; their first and most influential teachers are their parents. Children during their years of attendance in their home-school develop behavioral patterns and values that affect their growth and development through childhood and throughout life.

Schools cannot take the place of home education. They can, however, complement, supplement, and expand educational opportunities for all children in the community. Parents and teachers, therefore, should plan cooperatively a balanced program through which home and school support and reinforce one another. Children are the first to suffer when parents and teachers fail to work together. Parents profit from the cooperation and guidance of teachers, and teachers, in turn, are severely handicapped without the active support of parents.

The Parent and Teacher Association probably is the best-established and most useful community agency in which parents and teachers work together for continued improvement in the home and school education of all children. Each local P.T.A., through its identification with the National Congress of Parents and Teachers, shares in the national program in working for the following objectives:[20]

> To promote the welfare of children and youth in home, school, church, and community.
>
> To raise the quality of parent-child understanding in the home.
>
> To secure adequate laws for the care and protection of children and youth.
>
> To bring the home and the school into closer relation, so that parents and teachers may cooperate intelligently in the growth and development of the child.
>
> To develop between educators and the general public such united efforts as will secure for every child the highest advantages in physical, mental, social, and spiritual education.

The National Congress of Parents and Teachers has a membership of over seven million, working through thousands of local P.T.A. units. It supports a national leadership program that has a distinguished record of achievements in securing better education for all American children during the first half of the twentieth century. This national program is a genuine parent and teacher endeavor in which both share equally. Its success can be attributed in large measure to the democratic cooperation that has been practiced by parents and teachers.

Each local P.T.A. unit serves the local school and community by:

(1) Providing study groups where parents and teachers combine their efforts to understand and help children;

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[20] National Congress of Parents and Teachers, *Parent-Teacher Manual* (Chicago: The Congress, 1947), p. 11.

(2) Arranging meetings and study groups where teachers help parents in understanding the objectives and practices of the school program;

(3) Interpreting to the community the needs of the school;

(4) Helping the citizens recognize and accept their responsibility for improving conditions existing in the school;

(5) Working to help the board of education secure and retain well-qualified teachers; and

(6) Working for adequate financial support needed to insure the best working conditions and resources for teachers and children that the school district can provide.

(7) Interpreting to the community the educational achievements of the school.

GAUGING THE QUALITY OF LOCAL PARENT PARTICIPATION. Every parent and each teacher in the community is a potential member of the P.T.A., whether he is active or not. School administrators who work cooperatively with the local P.T.A. find the organization a valuable means of securing the interest and active support of the parents for continued improvement in democratic education.

An evaluation of the effectiveness of P.T.A. leadership may be made by asking such questions as:

(1) Is the community aware of the real purposes and achievements of its schools?

(2) Does a substantial majority of the parent and teacher group participate actively in the organization?

(3) Does the school administration work cooperatively with the officers of the P.T.A. in planning P.T.A. activities?

(4) Does the P.T.A. participate actively in the selection and support of capable Board members?

(5) Are the programs so planned as to inform P.T.A. members of the purposes, practices, achievements, and needs of the school?

(6) Does the P.T.A. lead in initiating cooperation with other community groups on civic and educational affairs?

(7) Do the Board of Education and school administration confer with the P.T.A. on educational problems and issues?

(8) Do P.T.A. members visit other schools and attend conferences to broaden their understanding of the best current practices in education and to improve their own effectiveness?

The foregoing emphasis on the P.T.A. should not be construed as belittling the importance of community educational councils, lay representation at appropriate school staff meetings, and various educational projects that the school and community may develop cooperatively. Attention has been concentrated on the P.T.A., however, because it is probably the most influential (and certainly the largest) nationwide organization of its kind in existence in a majority of school systems. Most of the generalizations and points made above also apply to community councils and similar agencies cooperating with the schools.

▪ Summary

The task confronting the public schools in the years that lie ahead is unequivocal: even more rapid progress must be made in providing guidance and activities that teach children the meaning of democratic articles of faith—the loyalties required in defending the democratic way of life. Chapter 14 began by pointing out that the primary duty of the schools in carrying out this task is to assist young people to develop the mental powers and moral confidence essential for intelligent citizenship in an international society.

Each school is obligated to apply the principles of democratic cooperation to the many activities in which teachers and children participate. Schools can best teach democracy when they themselves are a living and literal example of applied democracy. Childhood is the period in which children learn or fail to learn their basic understandings of applied democracy. The schools must not fail them by perpetuating practices and programs that are merely neutral toward democracy or even inimical to its interests.

The chapter next discussed that leadership in curriculum planning and in the general operation of the school is a process deeply involved in human relations. Its effect on individuals depends on the philosophy and values of those who control the process. Authoritarian leadership, as sometimes practiced in the schools, fails to discover and to develop the cooperative leadership skills of teachers and children. Democratic leadership, based on wide participation, fortunately is coming to be the accepted process in the best schools today. All members of the school group are given the opportunity to learn through experience the values and techniques in democratic cooperation. Free democratic education can be strengthened and perpetuated only by free teachers who believe in creating a democratic environment for children.

Democratic leadership, it should be understood, is not successful unless it motivates teachers to share in planning a program of continued professional development. The board of education and the administrative staff assist in the capacity of service agents to help teachers plan, conduct, and evaluate the in-service activities for which they feel a need. Teachers who keep abreast of improvements in their profession are better prepared to plan and guide a social education program in the classroom. But only when motivation for improvement comes from within the teacher will it be really permanent.

Children can develop qualities of democratic leadership only through curriculum experiences that provide insights into the meanings and procedures of its processes. Many schools are expanding the opportunities for children to share in socially useful activities that enable them to understand the nature and values of democratic participation in community service. Education *for* democracy must be an education *in* democracy.

The chapter concluded with the observations that the schools alone cannot do the job of educating boys and girls for effective citizenship. Parents are also responsible for the nature of their children's educational experiences. The Parent and Teacher Association has made striking progress in securing better parent–teacher interaction, better legislation, and financial support for the schools. It deserves the strongest support. Each local P.T.A. is a kind of community citizen's committee with the power to extend opportunities for democratic education. As such, it should command the active participation and support of educators everywhere. Education is in the nature of a community investment that adults make in their children and in their community's future. Through the P.T.A., educators can help bring about the best possible return on this investment.

Discussion Questions and Suggested Activities

1. As a class group, phrase a definition of "educational leadership" that is mutually acceptable.
2. What do you consider to be the most important qualities, characteristics, or traits of the able educational leader? Are some of these attributes more important than others?

3. What are some of the more important responsibilities that teachers must acknowledge and accept when there is effective faculty participation in decision-making and in curriculum planning?
4. Share with others in the class some of the effective and perhaps novel ways through which your school district has been able to encourage both pupil and lay participation in policy-making and curriculum planning for the school.

Selected and Annotated Readings

1. Bartky, John, *Supervision as Human Relations.* Boston: D. C. Heath & Co., 1953.

   An insightful and scholary book that comes to grips with many of the problems of educational leadership.

2. Hymes, James L., *Effective Home-School Relations.* New York: Prentice-Hall, Inc., 1953.

   Charmingly written, yet not froth! Study of Dr. Hymes' points and suggestions are almost certain to improve both the teacher's relationships with parents and parental sharing in educational planning.

3. Mackenzie, Gordon N., Stephen M. Corey, *et al, Instructional Leadership.* New York: Bureau of Publications, Teachers College, Columbia University, 1954.

   Valuable for its identification of the nature of educational leadership. The book also suggests how the effectiveness of leadership can be enhanced.

4. Shane, Harold G., and Wilbur A. Yauch, *Creative School Administration in Elementary and Junior High Schools.* New York: Henry Holt & Co., 1954.

   A broad conception of educational leadership and an interpretation of good elementary school administrative practices. Especially see Chapter 1 on the nature of leadership and Chapters 4-6 that treat various phases of leadership and appraisal.

5. Wiles, Kimball, *Supervision for Better Schools.* New York: Prentice-Hall, Inc., 1950.

   An influential book that makes a particularly important contribution by detailing how group processes can be put to work in the school.

15

Educational Values, the Curriculum, and American Prospect

When educational values are applied to the curriculum, they should direct the attention of school workers to long-term goals for American democracy. This chapter is both a résumé of educational values to be sought through curriculum change and an application of values to the question of how the elementary school best can serve America in the years that lie ahead. Evaluation in education—when effectively carried out—focuses the thinking of school people on the nation's cultural achievements in retrospect and on the need for cultural change in prospect. The past and present achievements in the United States provide the potential means to even greater achievements in the decades ahead. The real challenge now facing all citizens, as well as the schools, is that of directing educational change so as best to meet the emerging needs of our country in a world of nations quick to detect our uncertainties and to reject American leadership if it is poorly conceived or inept.

Education as a process of helping children and youth relate their values and skills to situations that require decisive, intelligent thought and action must direct thinking to the future as well as to a study of the past and present. It seems beyond dispute that our nation's future will be not only influenced by but determined by the vision, courage, and action of all individuals who are in our elementary schools now. If the curriculum is properly designed, the social and technological frontiers of the 1970's, 1980's and 1990's should be characterized by a way of life for all men that will carry the human race to new summits of a humane civilization. We cannot and dare not afford to give anything less than our best efforts to attain this end for our children.

■ Challenges to Test Our Educational Values

THE DYNAMIC DIRECTION OF CHANGE. Research reports and articles prepared by scholars and specialists present findings, information, and forecasts that provide a preview of the probable changes and developments that people can anticipate during the next 20 to 50 years. These are likely to include: (1) a national gross product approaching $1 trillion, (2) a domestic population of about 220 million in 1975, and perhaps more than 300 million in A.D. 2000, (3) rapid expansion in the application of nuclear energy, (4) accelerated use of automation in industry and commerce, (5) an appreciably shorter working week, (6) the opening up of new occupations and services, (7) an increase in speed and comfort in national and global travel, (8) expansion of educational opportunities through improved color television and other electronic creations, (9) improved medical care, (10) better housing and governmental services in cities and suburban communities, and (11) broader programs in public and private education for persons of all ages.

The American people, who constitute but a small fraction of this world's population, presumably will continue to benefit from the highest income, greatest productivity, and the highest standard of living and employment to be found in the world. (Also, we must anticipate that other peoples will demand and achieve relatively higher levels of purchasing power.) The actual attainment of those unprecedented achievements in coming decades will, however, depend more on maturity of citizenship than on improved mechanical power and processes in technological advancement. Modern technology can now manufacture almost any desired product except that most essential one—a mature mind. Education is the only agency we have for developing minds of tolerance, mediation, and brilliance that are capable of integrating properly the nation's cultural heritage, of dealing realistically and scientifically with socio-political realities, and of planning effectively for an improved America in prospect.

WHAT THE DYNAMIC OF CHANGE DEMANDS OF THE TEACHING PROFESSION. When they enter the teaching profession, teachers and administrators must expect to accept responsibility to serve the nation in three important ways: (1) by helping young people acquire and accept the sustaining ideas, values, and understandings of the American heritage; (2) by diagnosing and guiding the developmental abilities of children and youth; and (3) by providing curriculum materials and experiences that will help young people develop an inner, personal foundation for productive occupation and contributive citizenship in the future. Contributions such as these are essential if boys and girls are to live successfully in an environment characterized by dynamic change.

The program of the schools, of course, must serve the broad needs of society as well as the personalized needs of children. School people should be constantly aware of the point originally made in Chapter 1, namely that children now in attendance in elementary schools will be moving into their most productive years as adults during the period A.D. 1975-2000. A majority of today's children will have the privilege of being active in various occupations and in accepting citizenship responsibilities for a considerable period of time before they reach a retirement age of 65 or 70 during the twenty-first century. Challenging and heavy is the responsibility of teachers and school administrators to plan curriculums and to offer instruction that will motivate and assist these millions of future adults to learn the values, attitudes, psychological skills, and cultural understandings essential for meaningful, responsible, and constructive citizenship.

A program of elementary school evaluation that is governed by an awareness of future American prospects should direct thoughtful concern by teachers and administrators to evaluative questions such as these:

(1) What do specialists in certain fields of economics and commerce anticipate as the probable achievements of the nation in the decades ahead? What do such forecasts imply for national needs?
(2) What are the important demands revealed in these forecasts of America's future that have a bearing on curriculum planning and classroom instruction?
(3) Is the emphasis in curriculum designs and materials placed on "America in Retrospect" or is attention also focused on "America in Prospect"?

(4) To what degree does the curriculum help pupils in developing understandings of and appreciations for the foundational heritage of the nation in which they are privileged to live? Does it help them to understand our democratic values and practices and seek actively to defend and to extend them?

(5) To what degree does the curriculum provide pupils with topics, activities, and materials that assist them in understanding current conditions, problems, opportunities, and trends in contemporary American society?

(6) In what degree does the curriculum motivate pupils to accept *personal* responsibility for participation in the processes of creating a bright future for the American people?

A well-planned curriculum is not centered entirely around an effort to provide for or to utilize the purposes, interests, and needs of children. It also must serve society as the agency for preserving the time-tested elements in their heritage and for preparing young people for their active duties in preserving and in advancing the democratic principles and government in the years that lie ahead, both at home and abroad.

▪ The Teacher's Socio-cultural Understandings as a Foundation for Effective Curriculum Appraisal

It should by this time be completely clear that the writers envision teachers and administrators as among those persons in society who guard and strengthen the democratic heritage. They are, in effect, trustees for the ideas, values, attitudes, and understandings that have become imbedded in the nation's way of life. School people have the opportunity to perform an invaluable service to the nation and to children by informing themselves, through study and interpretation, both as to significant conditions and trends in contemporary society and as to what they suggest for in-school experiences, which will shape the "inner curriculum" or "under-the-skin" attitudes, values, knowledge, and skill of children so that the young will contribute generously of themselves in social improvement.

The professional responsibility and leadership role of teachers and administrators includes three dimensions: (1) understanding America in retrospect; (2) analyzing societal realities of the contemporary scene; and (3) comprehending the probable nature of developments and conditions in emerging decades and what their likely requirements for responsible citizenship and productive occupation will be in the society in prospect. Only when teachers operate in all three of these dimensions do they make a complete contribution to their job. Reasonable is the generalization, therefore, that the program of evaluation of a school system should include an evaluation by the faculty of its interpretation of the implications in some of the societal conditions and trends for curriculum planning, classroom instruction, and citizenship in the future. Some representative considerations in curriculum appraisal and redesigning are now reviewed.

APPRECIATING THE MEANING OF POPULATION GROWTH. The population of the United States of America in 1900 was approximately 72 million persons. A noticeable surge of numerical growth began in the early 1940's. The population had reached 165 million by 1955—a level completely unanticipated in the 1930's. Reports prepared by specialists in demography forecasts a population of about 177 million in 1965, about 220 million in 1975, and perhaps as many as 300 million in A.D. 2000. When the present large elementary and secondary school population reaches marriageable age, an even more sharp upward curve in the nation's population may be expected. Reports predict that the number of persons over 65 years of age in 1960 will be 9 percent of the nation's population. Persons of the most productive adult age group, 21 to 64, will face the responsibility of serving the needs of a larger number of young people under 15 years of age and the needs of a larger number of old people 65 years of age or over during the period A.D. 1958-2000.[1]

Another important change in the population has resulted from the shift from rural communities to city and suburban centers. Two persons out of three, by 1958, lived in a metropolitan area. The advance in technology has increased the concentration of manufacturing, commerce, and related services in large cities. The implications of population growth and shifts for better housing, efficient city and suburban transportation, city planning, recreational and welfare facilities, responsible government, and more adequate school support should receive attention and study in the school curriculum, *beginning at the elementary level.*

UNDERSTANDING THE NEW MOBILITY OF PEOPLE. Children live in an age when the nation's population travels swiftly, and over great distances, on wheels and wings. Travel distance in 1900 was measured by miles; today and in the future, travel distance will be measured more and more by flying time. The travel radii of people have been extended in a dramatic manner by the recent increase in speed and distance of travel by the automobile, streamlined train, modern steamships, and particularly by commercial airplanes. The new age of the jet-propelled airplane has moved from the research laboratory to practical reality. Time and travel will have new meaning for today's children, who will spend their lives in a jet and rocket age. They will accept as typical travel service a journey from New York to Los Angeles in as little as two or three hours, from New York to Paris in but little more time, from San Francisco to Honolulu in under 240 minutes, and from any major airport in the United States of America to any country on the surface of the earth in less than one day.

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[1] See Peter F. Drucker, *America's Next 20 Years* (New York: Harper & Bros., 1956), pp. 3-9.

Increase in family income and the almost inevitable prospect of a shorter working week will stimulate more people to increase their travel within the nation, as well as abroad. Modern transportation places a social demand on people and also on the schools. Pressing is the obligation of curriculum evaluators to direct the concern of teachers and administrators to such questions as these:

(1) Does the curriculum place emphasis on mental and moral maturity in the use of modern high speed transportation?
(2) Do textbooks and source materials present factual information about people as they live *today* in the different states and in other countries?
(3) Does classroom instruction help pupils to learn about people the world over without prejudice and with sympathetic understanding?
(4) Does the curriculum provide motivation and materials that will enable pupils more fully to comprehend the civic, commercial, and governmental requirements and responsibilities confronting people living in a closely knit world if they are to achieve the conditions that will help to preserve world peace?
(5) Do curriculum and instruction provide the means by which children may learn and accept moral accountability for demonstrating in their interaction with people, in places where they may work or visit, the fundamental values, and practices of American democracy?

Mobility of people demands mobile minds. Education in our schools can improve and protect our present worthy social institutions and goals by developing mature minds for persons who will become, to an ever-increasing degree, national and world travelers in the future.

SENSING THE SIGNIFICANCE OF MASS MEDIA OF COMMUNICATION. Persons interpret that to which they listen, observe, and read in terms of the framework of their conceptual thought—that is, in terms of the experiences that have shaped their personal reactions. The pictorial and verbal impressions transmitted by human sensory receptors, such as the eye and ear, must be translated by each person into conceptual information and thought. The quality and reliability of a child's *previous* learnings affects the meaning, reliability, and use of the impressions he receives. Powerful, indeed, are such mass media of communication as TV, radio, and the press in affecting the ideas, values, and thoughts of both children and adults. The curriculum must provide materials, guidance, and experience that help pupils to develop psychological skills in receptive and expressive communication. Development in critical listening and observing are equal in importance to the attainment of competence in reading and language usage. Children are dependent on the schools for assistance in developing ability in using the scientific method when interacting with conversations, radio, television, and the press. Yet before the school can be of real assistance, teachers themselves must sense the significance of the content and processes involved in mass media of communication.

Education for living in an Air Age must include the mental preparation that is prerequisite if one is to cope critically with information, news, propaganda, and ideologies transmitted through the atmosphere. The potential impact of mass media of communication is reflected by these statistics for 1954, given in the 1956 edition of *Information Please Almanac:* (1) 50 million American homes had at least one radio; (2) the total number of radios in use was 127 million sets; (3) there were 2669 radio broadcasting stations; (4) 30 million families owned a television set; (5) there were 439 television broadcasting stations; (7) the annual production of television sets was 7 million; (8) there were 317 morning newspapers with a total circulation of 21 million and 1448 evening newspapers with a total circulation of 33 million.

What persons interpret from their receptive communication through one or more of these media affects the content of their "private" or inner psychological world, and their appraisal of the external realities in the environments around them. Adults living in A.D. 1975-2000 will need preparation and psychological skills to enable them to interact critically with news, information, and propaganda transmitted by combined radio-television from all parts of the world.

Teachers and administrators, when evaluating the curriculum, should focus attention on such questions as these pertaining to mass media:

(1) Does the classroom provide guidance and experience in developing the use of the method of science in evaluating impressions received from the printed page, the radio, and television?

(2) Are current-event discussion periods provided wherein pupils appraise the accuracy of their interpretations of the billions of words and pictures poured forth from media of mass communication?

(3) Is the emphasis given to the development of psychological skills in listening and observing comparable to that given to the development of reading skills?

(4) What assistance is provided in helping pupils to understand their own inner psychological factors and their effect on each child's interaction with mass communications?

The behavior of pupils in out-of-school situations, as well as in school, provides an opportunity for functional evaluation of their learning in the classroom. Improvement in the child's scientific interpretation of what he absorbs from one or more of the media of communication in the home and community is an essential function of the classroom curriculum.

EFFECTIVE USE OF INCREASED TIME FOR RECREATION. The work-week for a large segment of the population in 1958 was about 40 hours. Past trends suggest a further reduction in future decades of the average work-week. This will stem from both increased efficiency and the increased application of automation in commerce and industry. The increased amount of time available for recreation serves as one last example of a change or trend of socio-cultural importance that teachers need to explore so as to ascertain what it suggests for curriculum appraisal. One of the opportunities, as well as problems, in the future will be that of finding a constructive answer to the query: "How can people be helped more adequately to develop wholesome ways of using their nonworking hours?"

Meaningful, satisfying living must include means for creativeness. The present emphasis in the culture given to consumer *play* and consumer *entertainment* reveals a misunderstanding of the need for a more creative role for and interpretation of technological society. Carskadon and Soule report, in the publication *U.S.A. in New Dimensions,* that Americans spent in the 1950's over $40 billion a year on all kinds of idle, noncreative recreation. They classified this expenditure as follows:

	Billions of dollars
Strictly recreational goods and services	10.5
Government recreational facilities	.5
Vacation travel	12.0
Liquor	8.1
Tobacco	4.4
Sport clothes, candy, soft drinks, gum, etc.	5.0
	40.5

The American Automobile Association reports that about 66 million people enjoy an annual vacation by automobile. Recreation encompasses many things, as shown in the summary of expenditures prepared by Carskadon and Soule. A closer examination of these writers' data show that:

(1) $2800 million were spent on television, radio, recordings, and musical instruments.

(2) $888 million went for magazines, books, and newspapers.

(3) $1134 million purchased tickets for movies.

(4) $1280 million were spent for nondurable toys and sports.

(5) $790 million paid for durable toys, sport equipment, models, etc.

(6) $836 million were lavished on flowers, seeds, and potted plants.

(7) $442 million went into amateur photographers' equipment and film.

(8) $867 million were expended on golf and other participant recreation.

(9) $556 million supported athletics, fraternal and patriotic clubs, and comparable organizations.

Education for a dynamic society should offer prepation in values, attitudes, and activities that enhance creativeness and enrichment in more creative use of recreational time and funds for more persons in the years ahead. Teachers and administrators when evaluating the curriculum reach conclusions regarding ways in which the curriculum can contribute to improved use of leisure by directing attention to such questions as these:

(1) What opportunities are presented in the curriculum for developing enthusiasm, understandings, appreciations, and skills in art, music, dramatics, and physical education?
(2) In what ways are classroom activities interrelated and used to improve pupils' recreational activities in out-of-school time?
(3) What provisions are made in the school program for participating in various types of constructive, creative recreational hobbies?
(4) In what degree should the school accept a measure of responsibility for the kinds of recreational activities pupils experience in the home and community environments?

The value of education resides in the *use* of learning rather than in the selfish possession of knowledge. One important outcome to be desired for children in elementary schools is an understanding of and creative skill in ways of using recreation to enhance personal and social living. Education for creative recreation will be more nearly comparable in importance to education for gainful employment in the future, when people will face the question: "How can we spend meaningfully, contributively, and creatively the many nonworking hours available during each week and year?"

■ An Understanding of Democratic Values as Prerequisite to Successful Evaluation

Democracy is both a philosophy and faith. It is based on people's desire for freedom, on their ability to govern themselves, and on their ability to progress toward the long-term goals that have motivated the thought and action of mature minds through the centuries. The forward momentum of American democracy has been based on the people's efforts to nourish and apply the values inherent in the democratic way of life. These values are truly meaningful only to individuals who accept them as means to mental and moral freedom among men and women everywhere.

The meaning and potential of democratic values reside not alone in words or statements but in wholesome personal and group behavior. The cumulative achievement of American democracy is, of course, partly the result of historical documents, such as the Magna Carta, the Declaration of Independence, the Constitution of the United States of America, and the Bill of Rights as expressed in the Amendments to the Constitution. These documents are a heritage from men and women who struggled for conditions under which the meaning of democratic values would be reflected in the action of men and women who both learned from the past and were convinced that the present was a kind of laboratory in which to chart the ways whereby people the world over would be able to achieve a more humane future for themselves and their children.

These people of vision, faith, and courage recognized, however, that democratic values were not mere abstractions on parchment or paper to be memorized and recited. Rather, they were motivating beliefs that gave higher meaning to life and led to productive results in the thoughts and deeds of people who desired to achieve freedom. It was realized that the present and future of man and the kind of government he devised were dependent on the readiness of the individual to grasp and to accept these values as *means* as well as ends. The founders of our public schools, with few exceptions, accepted the uniqueness and potential worth of each child and the service of education as a process leading to the discovery and acceptance of these basic values by children and youth. The primary function of American public schools, from early times, was conceived as that of providing curriculums and instruction to teach such sustaining values to children. Therefore it is imperative that school workers clarify their understandings of democratic values. Such clarification through study and discussion is prerequisite to successful evaluation of elementary schools and successful curriculum change.

America's future depends on the success of the schools in helping pupils to learn to understand and to accept and act in terms of such values as (1) the dignity and worth of individuals, (2) equality of opportunity based upon recognition of divergence in pupils' abilities, (3) freedom based on responsibility, (4) authority, not as mere power, but as guardianship of freedom, (5) free enterprise consistent with the general welfare, (6) loyalty to continually examined beliefs, (7) good citizenship as a foundation for government and law, and (8) freedom of choice in religious worship. Five of these values that are not always clearly understood are chosen for brief discussion.

THE DIGNITY AND WORTH OF INDIVIDUALS. At birth, each child is a unique organism possessing a unique potential for physical growth and mental maturing. Physical growth, when supported by adequate nutrition and recreation, responds to biological laws and to the growth pattern with which one is endowed. The dignity of self-respect, on the other hand, is a *learned* acquisition.

Each child becomes increasingly aware of the dignity of self as he experiences a sense of belongingness and adequacy in his interaction with his purposes and with the standards of the culture of his group. Dignity of self is also an earned sense of satisfaction and inner security. Mental and emotional tensions become active when the discovery and acceptance of one's personal dignity are blocked or are retarded. Dignity emerges from satisfying self-appraisal of one's ability to attain his goals and also to cooperate intelligently in meeting the requirements of the home, the community, and the nation. Schools best serve the development of potential dignity and worth in each child by providing instruction grounded on a curriculum that assists the learner to discover and develop this personal feeling of worth and dignity.

The opportunity to acquire dignity and self-esteem is of significance only to the degree that each individual is free to develop readiness and the subsequent ability to earn the democratic value of personal dignity. The child who is unwilling to live by such reasonable standards of school and community as have been established to safeguard the worth and dignity of *other* persons forfeits his own opportunity to earn them for himself. The curriculum must be so planned that each child learns the personal and social meaning of respect for others that is inherent in democratic life and government.

EQUALITY OF OPPORTUNITY AND DIVERGENT HUMAN ABILITIES IN THE ELEMENTARY SCHOOL. A democratic society provides channels for personal development based on the recognition of the fact that all boys and girls possess unique abilities. The concept that all children are entitled to the same type of education is not only undemocratic but unfair. The curriculum of the school should embody opportunities for the expression of the broad range of unique abilities of children and provide for the energizing of their individual potential by demanding the achievement of which they are capable. Conversely, it is abnormal to expect all children to respond to instruction in the same way and to acquit themselves on the basis of similar standards of personal and social development presumably required of all.

Classroom instruction should assist pupils in understanding the deeper meanings of equality of opportunity when each of them is unique in his ability. Any groupings of children should be accompanied by guidance that helps pupils to respect and to accept as normal those differences in ability and effort that inevitably exist. Also, the procedures involved in grouping boys and girls should be based solely on natural endowment and is in no way related to differences in socio-economic, ethnic, or religious identification. Pupils should learn to respect their associates for what they *do* and not for what they *are*.

FREEDOM AND RESPONSIBILITY. Although some comment (see pp. 41-43) already has been given to the relationship between freedom and responsibility, it is important to re-emphasize that a democratic society insures for each child the opportunity to earn his freedom by learning to be morally accountable for his choices and acts. The mere fact that one is born in a democracy does not automatically *give* freedom. Rather, education serves each individual as a major means to the *attainment* of freedom. The curriculum should help pupils to understand that freedom comes from learning to accept responsibility; from respecting and observing the standards that underlie the security and welfare of other persons. It is important for education to develop intellectual freedom and moral accountability in the individual rather than only acquaint him with subject matter to an extent that permits him to make good grades. Teachers may be of great assistance to children when discussion periods are provided during which children express, appraise, and redefine their conceptual interpretation of the relationship between personal freedom and social accountability. A beginning can be made at this kind of learning even at the nursery school level.

FREE ENTERPRISE AND SECURITY. The concept of free enterprise in one's occupation and in his citizenship role have contributed to industrial, commercial, and economic progress in American culture. Free enterprise or independence in business and industrial activities, however, if it is to remain vigorous, is contingent upon the application of the principles of "free enterprise"—the right to independent beliefs and actions—in education and in worship. Moreover, the foundation of democracy in action is weakened when individuals place a higher valuation on material security than on mental, social, and economic freedom.

The curriculum should stimulate pupils to respect classmates who apply the value of free enterprise by acting independently on their own ideas and in developing personal values and convictions. Youth should be made ready to revise viewpoints on the basis of critical thinking and tested information. The value of free enterprise in learning may be weakened when too great stress is placed on the "security" some children find in earning adequate grades for mastering only "minimum essentials." The school climate should be one by which each child is stimulated to attain his maximum potentialities to receive teacher or group recognition. Evaluation of the curriculum in a democratic context requires that teachers and pupils consider what answers should be given to such questions as:

(1) Are pupils learning the subtleties of relationship between free enterprise and group cooperation in American democracy?
(2) In what degree do pupils hold to their personal convictions and standards in the face of group pressures that sometimes favor less worthy values?
(3) Are pupils ready to accept independence in their appraised thought and action as superior to the security found in slavish conformity to group behavior?
(4) Do pupils understand and respect the difference between the common man and the uncommon man while retaining their respect for both?
(5) Do pupils understand and properly evaluate the role that free enterprise, or the right to independent beliefs and actions, has played in the industrial and economic advancement of the nation?

THE NATURE OF AUTHORITY. Both the protection and the advancement of the democratic way of life and government are based on recognition and respect for authority. People place authority in the hands of certain governmental figures in order to safeguard their personal, civic, and economic liberties. It must ever be recognized, however, that democratic authority resides in the quality of the thought and actions of leadership rather than in institutions and elected leaders themselves. The ultimate in responsible authority is reflected in service given for the protection of individuals, for the safeguarding of the general welfare of the community, and for the continuous appraisal of national institutions through the application of the scientific method. Agnes Meyer quite properly stresses the need for education that will develop a scientific philosophy and a humane society.[2] Schools can help children in interpreting the consequences that may be experienced by individuals when control by authority is based on democratic values, the use of the scientific method, and a philosophy of life and society that involves testing and retesting current values. Pupils may gain a more meaningful concept of democratic authority when thoughtful discussion at various grade levels centers around such questions as:

(1) What is the source of democratic authority?
(2) When should the authority of the classroom group or teacher override the freedom of the individual?
(3) What concepts and interpretations of governmental authority reside in the Constitution and in the Supreme Court of the United States?
(4) In what degree does authority reside in social institutions, in subject matter, in individuals, and in the democratic process?

■ Education for the Future

The astute application of research findings in the natural and physical sciences has produced the great advances in technology to which frequent reference has been made in earlier pages. The hesitancy of people to apply the methods of science in revising traditional views, values, and practices has, on the other hand, created the condition that is vividly described as "social lag."

As we draw near the close of *Evaluation and the Elementary Curriculum,* it seems fitting to underscore the viewpoint that education will serve society and children most effectively when the evaluation process eventuates in curriculums that are the means to insightful guidance and significant experience in learning how to think by applying the scientific method to problems of personal and social behavior. Pupils should be expected to learn the basic ideas and values inherent in America's heritage, to deal realistically with the situations presented in the present, and to envisage and plan with courage and faith for the nation's potentially magnificent future. Children and adults learn from the past; they live in the present; they cannot escape the emerging future. Tremendous has been the nation's progress since 1900; greater still is the promise of continued progress during the closing decades of this century. Education must help pupils to learn how to translate their contemporary problems into opportunities for improvement in the years that lie ahead.

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[2] Meyer, Agnes E., *Education for a New Morality* (New York: The Macmillan Co., 1957), pp. 64-91.

Schools represent the people's permanent investment in their children and in the nation's future. The survival of the values we cherish is dependent, in considerable measure, upon the success of teachers and administrators in planning curriculums and instruction that will assist pupils in developing the attributes of productive citizenship, broadly conceived. The adults living in A.D. 1975 and the years that ensue will, through the lives they choose to lead, give the final functional evaluation of the objectives, curriculums, and instruction offered in the elementary schools during the immediate future. May America in Prospect be the ultimate proof that the school administrators and teachers of today have made their evaluations of the elementary curriculum with wisdom and with courage.

Discussion Questions and Suggested Activities

1. What are some of the school practices and policies with which you are familiar and which you believe seem likely to help children and youth to contribute to "America in prospect"?
2. Visit the library and browse a bit through the more recent books dealing with changing patterns of life in America. Develop a short list of titles that you wish to read in the next several months.
3. Engage in a class discussion that will help you to interpret personally the sampling of eight values essential to effective elementary school evaluation (see p. 394).

Selected and Annotated Readings

1. Carskadon, Thomas R., and George Soule, *U.S.A. in New Dimensions*. New York: The Macmillan Co., 1957.

   This volume, and the three that follow, are selected as representative of the challenging books dealing with the dynamic directions of technological and socio-economic change, and from which the teacher may draw inferences with respect to both the educational implications of current trends and the importance of the teacher in curriculum planning for America in prospect.
2. Meyer, Agnes E., *Education for a New Morality*. New York: The Macmillan Co., 1957.
3. Sarnoff, David, *et al.*, *The Fabulous Future: America in 1980*. New York: Dutton & Co., 1950.
4. Trueblood, E. J., *The Dawn of the Post-Modern Era*. New York: The Philosophical Library, 1954.

APPENDIX A

A Summary of the Development of Evaluation in Education

THE development of the concept of evaluation in education is relatively new. Many of the techniques and procedures with which the evaluative process is implemented are so recent that their origins are not generally known. Appendix A is concerned with backgrounds which may prove of interest to the historically minded reader interested in research.

■ Origins of the Concept of Evaluation

The concept of evaluation is a phase of man's continuing effort to apply intelligence to the rational solution of his problems. In this sense it undoubtedly is partly indebted to philosophy for its contributions with regard to what Butler, writing of pragmatism, has called a "new logic adequate for the science and culture of our time . . ."[1] This form of inquiry, closely associated with the writings of John Dewey, is based upon the experimental method as a means of reconciling present-day applied science techniques and the "everyday common-sense inquiry of home, field, and market place."[2]

Dewey's pattern or method of inquiry may be studied in his

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[1] J. Donald Butler, *Four Philosophies and Their Practice in Education and Religion* (New York: Harper and Brothers, 1951), p. 439.

[2] *Loc. cit.*

Logic: The Theory of Inquiry.[3] It consists of five basic steps: activity, problem, observation of data, formulation of hypotheses, and testing of hypotheses. The steps in the evaluative process in some ways resemble this pattern.[4]

Evaluation, as a procedure, is indebted to science as well as to philosophy. In appraisal processes there are many elements which are akin to the steps in the scientific method for sensing problems, and for formulating and testing hypotheses. Slavson and Speer, a number of years ago, described the "search-discovery technique" in elementary school science. They noted that "Its chief characteristic consists in the fact that the pupils are led by the environment—the problems and activities which it stimulates—to discover (1) scientific facts and (2) the need for such information."[5] Their description of the application of search-discovery as suggested by the scientific method, "a method of pupil initiation and pupil participation, of pupil initiation and pupil execution,"[6] in many ways anticipates current evaluative procedures in which children share.

The field of general semantics, developing concurrently with the field of evaluation, also has exerted some influence on the thinking of evaluators. Korzybski, the father of general semantics, formulated "a theory and method which gave a means of proper evaluation whenever language is used."[7] In recent years workers in this field have pointed to ways in which the methodology of general semantics can be used in appraising the problems of human beings. Perhaps the best example of this point of view can be found in Johnson's stimulating book, *People in Quandaries,* in which he writes:

> General semantics may be regarded as a systematic attempt to formulate the general method of science in such a way that it might be applied not only in a few restricted areas of human experience, but *generally* in daily life.[8]

While too recent in its development to have profoundly shaped the evaluative process in education, contributions from the general semanticists unquestionably have made the thinking of evaluators more fertile.

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[3] John Dewey, *Logic: The Theory of Inquiry* (New York: Henry Holt and Company, 1938). Cf. pp. 428 ff.

[4] See Chapter 3, pp. 61-62.

[5] S. R. Slavson and Robert K. Speer, *Science in the New Education* (New York: Prentice-Hall, 1934), p. 301.

[6] *Loc. cit.*

[7] Irving J. Lee, *Language Habits in Human Affairs* (New York: Harper and Brothers, 1946), p. 33.

[8] Wendell Johnson, *People in Quandaries* (New York: Harper and Brothers, 1946), p. 33.

EDUCATIONAL TRENDS INFLUENCING EVALUATION. The concept of evaluation has been helped to mature particularly by two powerful forces on the educational scene: (1) the scientific movement, and (2) recent insights into the nature of child development.

The scientific movement. The scientific movement influenced evaluation significantly by providing many tools and measurement techniques which subsequently became of use in evaluative appraisal. These include intelligence and achievement batteries, and a wide variety of tests of performance, aptitude, and so forth. The movement also contributed indirectly to evaluation by motivating certain educators to seek more comprehensive means of gauging the work of the school than were originally provided by older types of testing instruments.

Child development research. Research in the field of child development urged upon educators the need to re-examine their values as knowledge accumulated. This scrutiny of values led to dissatisfaction with certain beliefs and practices of education. For example, the following sampling of a few newer emphases in classroom procedures are representative of elements suggesting the need for new bases in appraising educational outcomes:

first-hand experiences for children
the concept of child needs and interests
increased use of teaching aids
community service by the school
the role of emotion in learning
growing recognition of the importance of practicing democracy in the classroom
changing knowledge regarding the I.Q.
acceptance of the need to improve human relations in classroom and community

As new theories and the practices to which they point in education gained acceptance, different means had to be found to determine what constituted "successful" teaching and learning. In this sense recent educational trends helped evaluation to make the start it has made in superseding more narrow means of judging the work of the school.

■ The Recent Development of Evaluation

The comprehensive interpretation of evaluation accepted by the writers (and to which measurement and testing are subordinate) had its beginnings in the 1930's. A few isolated examples of applied evaluative techniques may be found early in this period. They were followed by major milestones, such as the work of Wrightstone and of the Evaluation Staff of the Eight Year Study described below.

EARLY EXAMPLES OF THE APPLICATION OF MODERN EVALUATIVE PROCEDURES. One of the earlier examples of the use of an evaluative technique was reported by Carroll in 1933. He hit upon the idea of using a panel of qualified judges to select good and poor literature, subsequently to be used with students to gauge their appreciation.[9] His efforts were among the first made to ascertain relatively intangible outcomes of instruction.

Charters, at about the same time, was experimenting with anecdotal records which since have become well-established as a means of gathering data. He employed the anecdotal approach in the process of studying whether or not students' behavior at the Rochester Athenaeum and Mechanics Institute was consistent with the staffs' stated objectives.[10] Tyler, in 1934, made use of a check list to record students' behavior when using laboratory equipment.[11] Tharp thought of using a recording machine in what was, in 1935, a novel approach to the study of behavior.[12] Each of these innovations by itself may seem slight. However, it was through such attempts to measure what previously were deemed to be "immeasurable" elements in the outcomes of instruction that subsequent major evaluative projects were made possible. The present status of evaluation might be far less well developed if it were not for experiments such as those mentioned and similar work by Symonds with observation techniques in 1931, by Hartung in mathematics, Stalnaker in English, Heil in science, and others.

MILESTONES IN EVALUATION. A few examples have been selected below as representative of the patient, imaginative, and creative work of a small number of professional educators who have made important contributions in raising evaluation to its present status. Their efforts may be likened to milestones.

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[9] H. A. Carroll, "A Method of Measuring Prose Appreciation," *The English Journal,* 22:184-189, 1933.

[10] W. W. Charters, "Education and Research at a Mechanics Institute," *The Personnel Journal,* 12:119-123, 1933.

[11] Ralph W. Tyler, *Constructing Achievement Tests* (Columbus, Ohio: The Ohio State University Press, 1934).

[12] J. B. Tharp, "A Modern Language Test," *Journal of Higher Education,* 6:103-104, 1936.

Wrightstone's studies of educational practices. Credit is due J. Wayne Wrightstone for pioneering in the field of evaluation during the past two decades. In 1935 he reported on his efforts to appraise "newer-type" and "standard-type" school practices in a volume which continues to be of interest and influence.[13] Probably because of the persistent criticisms directed at so-called "progressive" schools, Wrightstone set himself the task of comparing the outcomes of instruction in a number of New York City area schools. A good portion of the significance of his efforts resides in his creativeness in setting out to gauge what were generally considered to be elements too subjective or ephemeral for measuring.

In the process he obtained descriptions of experimental practices, designed instruments to appraise attitudes, adjustment, and social performance, and made use of subject matter tests. The results of his investigation were encouraging to school people in the "newer-type" elementary schools, for Wrightstone was able to conclude that "In the areas of intellectual factors, dynamic factors (interests, attitudes) and social performance factors, as they have been measured in this study, the new-type schools were superior . . ."[14] At the secondary level findings were similarly encouraging.[15]

Regardless of the outcome of his study, Wrightstone's work doubtless would have remained significant because of the imaginative procedures it suggested to those seeking to develop flexible evaluative techniques. Much subsequent experimentation bears the mark of the influence of his approaches.[16]

The Eight-Year Study. The most generously financed and extensive evaluative project developed to date is the Eight-Year Study, sometimes called the Thirty School Experiment. Begun early in the 1930's, this investigation at first had limited funds, but later was supported by large foundation grants.

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[13] J. Wayne Wrightstone, *An Appraisal of Newer Practices in Selected Public Schools* (New York: Bureau of Publications, Teachers College, Columbia University, 1935).

[14] *Ibid.*, p. 113.

[15] *Ibid.*, p. 115.

[16] Also see Wrightstone's *Appraisal of Newer Elementary School Practices* (New York: Teachers College, Columbia University, 1938), and "Evaluation of the Experiment With the Activity Program in New York City Elementary Schools," *Journal of Educational Research*, 38:252-257, 1944.

Its general purpose was to improve the high school's service to American youth, and the interpretation this purpose was given may be read in the first of the five volumes in which the study was reported in the 1940's.[17] Of special interest to educators desiring to learn more about the evaluative processes developed in the study is the portion of the report drafted by Smith and Tyler[18] of the evaluation staff.

The Thirty School Experiment was primarily concerned with ascertaining how a large number of students who went through contrasting high school curricula fared during their college years. These students were divided into two comparable groups. One group followed a program in secondary education which met the conventional college entrance requirements; the other was permitted to enter higher education without satisfying requirements other than those set up by the professional judgment of the staffs of the thirty schools. The teachers were thus free to develop the most creative learning experiences they could devise with children. This was done without concern for the controls established by colleges and universities, such as entrance examinations, units of credit, and specified majors.

The challenge to the evaluation staff in this experiment was to design instruments which would measure successfully the progress which students made toward the high schools' goals. According to Smith and Tyler, the following major objectives were those for which new measuring tools were needed:[19]

1. *The development of effective methods of thinking.* This required instruments for gauging students' ability to interpret data, to apply principles, to reason logically, and to comprehend the nature of proof.
2. *The cultivation of useful work habits and study skills.* Here skills and habits had to be observed and analyzed scientifically.
3. *The inculcation of social attitudes.* This involved finding means, through scales of beliefs, to interpret young people's social, economic, and political thinking.
4. *The acquisition of a wide range of significant interests.* Here the evaluation staff was required to devise inventories for personal, social, and school interests.
5. *The development of increased appreciation of music, art, literature, and other esthetic experiences.* This posed the task of preparing devices for gauging appreciation—a difficult "intangible" to appraise.

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[17] Wilford M. Aikin, *The Story of the Eight-Year Study* (New York: Harper and Brothers, 1942).

[18] E. R. Smith, and Ralph W. Tyler, *Appraising and Recording Student Progress* (New York: Harper and Brothers, 1942).

[19] *Ibid.*, pp. 16-18.

6. *The development of social sensitivity.* Gauging the extent to which students applied social values, facts, and generalizations to social problems was the job to be done here.
7. *The development of better personal-social adjustment.* This created a need for improved anecdotal and self-reporting instruments.
8. *The acquisition of important information.* The evaluation had to decide what was "important," and whether or not the students really had acquired it.
9. *The development of physical health.* This was the only point not appraised by the evaluation staff, which deemed it an objective to be checked by technically trained medical workers.
10. *The development of a consistent philosophy of life.* In this area also scales of beliefs were needed.

From the evaluation staff's success in analyzing such elements or qualities as those above one can infer the tremendous influence of the Eight-Year Study on evaluative practices. The experiment probably provided the greatest intellectual stimulus to appraisal practices that they have yet received.

The Evaluative Criteria of the Cooperative Study of Secondary School Standards. A third important milestone in evaluation is the work of the Committee for the Cooperative Study of Secondary School Standards.[20] Shortly after the Progressive Education Association launched the Eight-Year Study this Committee began its efforts to devise a useful instrument which would help school people clarify their objectives at the high school level, and appraise the degree of their success in achieving them.[21]

An intensive study was made of the problem from 1933 to 1939. One outcome of these labors was what is probably the most comprehensive single instrument for evaluation now in use: the *Evaluative Criteria.* This sizable device consists of numerous scales, conversion tables, and so forth, which are used by a visiting committee invited to evaluate a school. The appraisal often lasts for several days and, when concluded, provides an over-all view of the school's program with regard to its success in providing adequate leadership and resources for learning. Appraisals involving the use of the *Evaluative Criteria* have proved especially useful since 1940 in stimulating local staff discussion, and in helping to redirect the reorganization of secondary education. The instrument is, however, difficult to use because of the preparatory work involved. Many schools nevertheless have found the effort rewarding.[22]

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[20] *Evaluative Criteria: 1950 Edition* (Washington, D. C.: Cooperative Study of Secondary School Standards, 1950).

[21] The interested reader is referred to "Evaluation in the Secondary School," *Bulletin of the Department of Secondary School Principals,* 32:154, April, 1948. The entire issue is given over to the *Evaluative Criteria.*

Current work in evaluation. Like many another field, evaluation lost some of its dynamic momentum during World War II. Perhaps some of the initial impact of the Thirty Schools Experiment was dissipated because efforts to implement its findings were forced to compete with the schools' wartime efforts. The use of the Evaluative Criteria was also hampered by travel restrictions and defense activities which absorbed educators' time and energies after 1941.

By 1950 there was strong evidence that evaluation had again hit its stride. Many projects were once more underway, as Chapter 3 of this book suggests. Evaluative procedures in the Detroit Citizenship Study, the Philadelphia Open-mindedness Study, the South-Wide Study, the Follow-up Study of the Illinois Secondary School Curriculum Program, and the Texas *Handbook for Appraisal and Improvement of Elementary Schools* document this statement.[23]

The discussion and listing of current and recent instruments for appraising the elementary school presented in Chapter 3 (see pp. 73 to 74), provide an overview of available materials and also suggest the appreciable extent to which evaluative techniques and procedures have been put to use. Action research as a relatively new interpretation of the evaluative process also has been reviewed (see p. 68 ff), hence is not singled out for further description here.

It seems altogether reasonable to conclude that the next decade will witness an even more important role played by appraisal procedures in public education. This is desirable since, as Wrightstone notes, present trends in evaluation are evolving ". . . from a newer philosophy of education and the development of newer techniques for assessing growth and development."[24] The schools need the resources provided by evaluative procedures, techniques, and findings, and educational leadership must see that they are used wisely and well.

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[22] For a more extensive description of the *Evaluative Criteria* see Chapter XVII in C. C. Ross, *Measurement in Today's Schools,* 2d ed. (New York: Prentice-Hall, 1947).

[23] See Appendix C for annotated references to publications which have resulted from the projects mentioned.

[24] J. Wayne Wrightstone, "Trends in Evaluation," *Educational Leadership,* 8:91-95, November, 1950.

APPENDIX B

Criteria of Good Citizenship Expressed in Behaviorial Terms

A SCHOOL staff engaged in using the evaluative process must, first of all, have a clear set of values. These values are then translated into criteria by means of which the educational program of the school can be appraised.

It is when staff members undertake to express the criteria, which they presumably have accepted, in terms of children's behavior that confusion frequently arises. Chapter 5 provides a number of specific examples which demonstrate how a particular criterion can be analyzed and expressed in behavioral terms. Appendix B brings to the reader another specific example.

The Working Committee on Citizenship of the National Council for the Social Studies submitted tentative criteria for the good citizen to some three hundred leaders in nearly every major field of endeavor in American life. As a result of the responses received, the Committee produced "Are You a Good Citizen?" which was published in the *NEA Journal,* 39:612-614, November 1950. The material is of particular interest to the evaluator because the Working Committee first stated each criterion which was accepted, and then listed behaviors which were assumed to be consistent with and indispensable to successful progress by children, youth, and adults toward the objectives of good citizenship.

The instrument reproduced below consists of twenty-four criteria (e.g., "The good citizen believes in equality of opportunity for all people"). Following each stated criterion some of the *behaviors* to be expected of a socially educated person are listed. Educators can apply the same general procedure to various other areas in the educational program (science, arithmetic, etc.).

ARE YOU A GOOD CITIZEN?

THE GOOD CITIZEN

(1) Believes in equality of opportunity for all people:

- (a) treats all men with respect, regardless of their station in life,
- (b) rejects distinctions based on race, creed, or class,
- (c) exerts his influence to secure equal opportunity for all, in accordance with ability,
- (d) upholds the principle that all men are equal before the law and entitled to the equal protection of the law,
- (e) believes that the right to vote should not be denied on the basis of race, sex, creed, or economic status.

(2) Values, respects, and defends basic human rights and privileges guaranteed by the U. S. Constitution:

- (a) knows the provisions of the Bill of Rights,
- (b) upholds freedom of speech for ideas he doesn't like,
- (c) goes beyond legal requirements by observing the spirit of the Bill of Rights in situations not covered by law.

(3) Respects and upholds the law and its agencies:

- (a) upholds the idea of government by law,
- (b) insists upon equality before the law and equal protection of the law for all,
- (c) insists upon the use of due process in all legal action,
- (d) obeys the law, condemns lawbreaking, and supports officials in their work of law enforcement,
- (e) willingly performs jury service, regarding it as one of his contributions toward law enforcement,
- (f) respects and supports officers who enforce the law, but does not permit his zeal for law enforcement to encourage officials to infringe upon guaranteed civil rights,
- (g) understands what perjury means and testifies honestly.

(4) Understands and accepts the following democratic principles as guides in evaluating his own behavior and the policies and practices of other persons and groups, and judges his own behavior and the behavior of others by them:

- (a) that each individual possesses dignity and worth as a person and is entitled to consideration as a person,
- (b) that governments exist by the consent of the governed,

- (c) that each citizen has certain civil rights guaranteed by the Constitution,
- (d) that government is by law, not by men,
- (e) that in a large nation with diverse social and economic groups compromise is frequently necessary,
- (f) that since the people are intelligent enough to govern themselves, they do not need protection by censorship—hence free speech, a free press, and academic freedom are necessary.

(5) Understands that, in the long run, people will govern themselves better than any self-appointed group would govern them:

- (a) rejects all group claims to special privilege based on birth, wealth, place of origin, or place of residence,
- (b) consults the advice of experts within their field of competence by considering their recommendations within a framework of total needs,
- (c) expands his range of interests to gain some basic knowledge in many fields where his vote may help make a decision,
- (d) favors better and more education as a means for improving the quality of government,
- (e) realizes that democracy is, and has been, challenged by ideologies which reject its principles and base the claim of a small group to hold all power on the assumption that the people are unable to govern themselves.

(6) Puts the general welfare above his own whenever a choice between them is necessary:

- (a) avoids the abuse of public benefits (e.g., the misuse of unemployment compensation by a process of malingering),
- (b) devotes time to community organizations and services without pay,
- (c) has enough insight to realize that in the general welfare may be his own long-term welfare.

(7) Feels that he has inherited an unfinished experiment in self-government which it is his duty and privilege to carry on:

- (a) realizes the dangers to democracy from internal pressures arising from bigotry and prejudice,
- (b) realizes that methods for meeting current economic problems such as labor-management relations and boom-depression cycles can be improved,
- (c) denies to any group the right to use illegal or extra-legal methods of installing or enforcing its program,
- (d) recognizes the dangers to democracy of a totalitarian philosophy based on fascism, communism, or excessive nationalism,
- (e) is critically aware of differences between democratic ideals and accomplishments, but works to improve accomplishment and refuses to become cynical about the differences; recognizes that one function of idealism is to achieve a better reality.

(8) Exercises his right to vote:

- (a) rejects emotional appeals when such appeals have little relation to the issues discussed,
- (b) realizes that in a community where voters are apathetic a minority may hold the power to govern,
- (c) will find out how, when, where to register in order to vote,
- (d) votes habitually in primaries, recognizing the importance of the primary in selecting candidates,
- (e) avoids narrow advantages based on parochialism and provincialism in consideration of candidates and issues,
- (f) studies the main issue in each bond issue, referendum on public questions and other issues to be decided by the electorate at the polls.

(9) Accepts civic responsibilities and discharges them to the best of his ability:

- (a) regards a public office as a public trust,
- (b) gives the holding of public office a high priority among the obligations he owes to society,
- (c) refuses to act arbitrarily or approve of arbitrary official action even when his own party or faction stands to gain from it,
- (d) recognizes his obligation to render military service or other appropriate service in time of war.

(10) Knows techniques of social action (e.g., how to win support for desirable legislation) and can cooperate with others in achieving such action:

- (a) relies upon persuasion within a framework of fair play for gaining adherents to his cause,
- (b) avoids exaggerated claims for his program which may encourage a reaction when the promised benefits fail to appear,
- (c) does not allow his enthusiasm for the success of his project to lead him to accept compromises which are prejudicial to the general welfare,
- (d) accepts the necessity for honest compromise as a part of the democratic process,
- (e) realizes that the best opportunity for a single individual to influence public decision is through cooperation,
- (f) participates in organizational activity at the neighborhood level and knows how to relate this activity to larger social units,
- (g) attends meetings, uses forums, letters to the papers, and petitions to contribute to plans and programs that lead to public action.

(11) Accepts the basic idea that in a democracy the majority has the right to make decisions under the Constitution:

- (a) acts on the basis that as a member of the minority he is free to speak, write, and work for a reversal of the majority decision,
- (b) does not, as a member of a minority, ignore or sabotage a decision which the majority has legally made,

- (c) relies upon the courts to decide questions of law and fact and does not take the law into his own hands,
- (d) understands the device of divide and rule practiced by unscrupulous minorities to make a majority impotent, and guards against it.

(12) Assumes a personal responsibility to contribute toward a well-informed climate of opinion on current social, economic, and political problems or issues:

- (a) knows and practices the basic skills of critical thinking,
  - (1) locates and evaluates evidence relevant to the issues at hand,
  - (2) analyzes the elements of a controversial issue and weighs the motives of interested parties,
  - (3) understands the methods and devices of the propagandist,
  - (4) reserves his reasoned decision until considerable evidence has been weighed, then takes a working hypothesis which he acts upon if necessary,
  - (5) subjects this working hypothesis to future modification if new evidence warrants it,
- (b) cultivates the habit of keeping well-informed on current affairs, preferably through diverse sources of information whose interests and biases he has made some effort to ascertain,
- (c) discusses public issues with others, reflecting and learning from their views, and exerting the force of his own reasoned opinions,
- (d) knows how to use available channels of communication such as forums, clubs, letters, petitions, speeches, and so forth, in cooperation with others of like views to influence public decisions for social action,
- (e) learns to express effectively the judgments at which he has arrived,
- (f) before expressing any judgment, he tests it for consistency with democratic assumptions,
- (g) respects the honestly-held views of others and minimizes personalities and loyalties to groups in considering ideas.

(13) Realizes the necessary connection of education with democracy:

- (a) realizes need for academic freedom if education is to make its full contribution to democracy,
- (b) accepts the proposition that if the people are to rule, then the people must be enlightened,
- (c) upholds the principle of a career open to talents through free education as an alternative to any scheme for aristocratic leadership.

(14) Respects property rights, meets his obligations in contracts, and obeys regulations governing the use of property:

- (a) refrains from wilfully damaging the property of others, exercises care against accidental damage, and repairs any damage he has caused,
- (b) does not enter into a contract unless he is reasonably sure of his ability to meet his obligations,

- (c) recognizes that some controls on the use of property are necessary for the general welfare, such as building regulations and zoning ordinances.

(15) Supports fair business practices and fair relations between employers and employes:

- (a) opposes false and misleading advertising as a form af fraud,
- (b) recognizes the right of workers to form unions for the purpose of collective bargaining,
- (c) condemns the use of violence as a means for settling economic issues,
- (d) regards it as a civic duty to get a job and to do it well,
- (e) recognizes that he has a stake as a citizen and consumer in disputes between economic groups, particularly if essential services are involved.

(16) Assumes a personal responsibility for the wise use of natural resources:

- (a) avoids habits of waste or carelessness which consume or destroy natural resources without raising the standard of living,
- (b) supports public measures for the preservation of such natural resources as topsoil, irreplaceable minerals, and forests.

(17) Accepts responsibility for the maintenance and improvement of a competitive economic system assisted and regulated when necessary by governmental action:

- (a) understands and values what a competitive economic system has already accomplished and its future possibilities,
- (b) understands that the competitive economic system has relied upon private initiative to release creative and productive energy,
- (c) understands that the growing interdependence of society has created needs for regulation in the public interest,
- (d) favors the use of public funds for research and technological development of long-range programs which may add to the nation's wealth in fields where private enterprise has not produced adequate development and in those where private development would be incompatible with the public interest,
- (e) is aware of the unsolved problems of our economy (e.g., the business cycle, the social and economic consequences of distribution),
- (f) is aware that economic monopoly carries with it economic power and potentially political power.

(18) Knows in general how other economic systems operate, including their political and social consequences:

- (a) knows that communism as an economic system reduces private property to a minimum,
- (b) knows that socialism as an economic system provides for public ownership and operation of public utilities, public services, and basic processing industries as public concerns,

(c) in studying other economic systems, gives full consideration to the possible losses to the individual in terms of freedom and to the community in terms of incentive,
(d) balances these possible losses against possible gains in security in studying various other economic systems.

(19) Knows about, critically evaluates, and supports promising efforts to prevent war, but stands ready to defend his country against tyranny and aggression:

(a) recognizes the factors in international relations which lead to armed conflict, such as armament races, a chauvinistic press, economic rivalry, power politics, and ideological differences.
(b) recognizes achievements made by international organizations in the interest of peace, order, and human welfare,
(c) has enough perspective to see in events in other countries threats to peace and freedom in his own,
(d) studies proposals for preventing future wars and avoids feelings of unjustified optimism or irrational despondency,
(e) is willing to consider modifying national policies, when democratic values are not at stake, in the interest of international peace,
(f) looks with favor upon effective international controls over special phases of technology to prevent war or limits its destructiveness,
(g) does not allow his love for peace, or his dread of war, to lead him to abandon democratic values or submit to unilateral pressure from an aggressor,
(h) appreciates the role of the armed services (under civilian control) of his country and supports measures to keep them as strong and effective as necessary.

(20) Is deeply aware of the interdependence of people and realizes that a good life can be attained only by the organized cooperation of millions of people all over the world:

(a) supports the maximum use of scientific research for improving human living and human relations,
(b) supports all measures for better and more accurate communication among classes and nations,
(c) understands the organization and functions of the United Nations and its specialized agencies.

(21) Understands cultures and ways of life other than his own:

(a) recognizes that other cultures have made contributions to our own,
(b) realizes that attempts to impose our way of life on others may bring resentment,
(c) conducts himself as a worthy representative of his country in his personal and public relations with people he meets at home and abroad.

(22) Cultivates qualities of character and personality that have a high value in his culture:

- (a) is honest in his relationships with others,
- (b) plays fair, follows the rules of the game, asks for no personal advantage, and refuses to cheat,
- (c) cultivates physical and moral courage,
- (d) is loyal to his ideals,
- (e) is courteous and considerate of the rights and feelings of others,
- (f) is industrious in his work and respects the time of others,
- (g) protects his health and safety and is concerned for the health and safety of others.

(23) Is a responsible family member and assumes his full responsibilities for maintaining the civic standards of his neighborhood and community:

- (a) does his part to make his family a competent social and economic unit,
- (b) maintains family property, works out plans and acts with his family to build neighborhood attitudes of friendliness and cooperation,
- (c) takes a deep interest in questions of general concern to the neighborhood,
- (d) has the courage to report any unlawful activity in his neighborhood and insist on police and court action for its removal.

(24) Recognizes taxes as payment for community services and pays them promptly:

- (a) reviews the services provided by the community and evaluates them against his tax bill,
- (b) in considering all proposals for spending public money, considers ability to pay, public needs, and other relevant factors before voting,
- (c) opposes proposals for lower taxes if they mean inadequate community services.

APPENDIX C

A Selected and Annotated Bibliography of Evaluation Instruments

FOR USE IN ELEMENTARY SCHOOLS

THE field of school evaluation has developed a considerable literature since 1930. In the pages which follow the writers have compiled a list of some of the devices which have been prepared for purposes of appraising educational practices and conditions in the elementary school. In a few instances, evaluative tools for use in the high school also are included because they suggest appraisal procedures and techniques which can, with some modification, be adapted for use in the upper grades or in the junior high school.

Undoubtedly, there are a number of useful evaluation instruments that might have been included here and are not. This does not necessarily reflect on the lack of merit of such instruments. Rather, omission due to the fact that many such instruments are what librarians call "fugitive materials." This term applies to reprints, pamphlets, and assorted soft-cover publications which disappear, like fugitives, before the research worker can include them in bibliographies. Nonetheless, the list which follows should help the student or elementary school faculty to obtain an overview of representative materials used for curriculum appraisal in American schools.

(1) Arizona State Department of Public Instructions, *Teaching Guide and Philosophy of Education for Elementary Schools of Arizona,* Bulletin

No. 1. Phoenix: State Department of Public Instruction, 1948. 40pp. A State Department handbook presenting a philosophy of education adapted from the NEA publication, *Purposes of Education in American Democracy*. Objectives are treated briefly under three headings: (a) knowledge or understanding, (b) habits and skills, and (c) attitudes, ideals, interests, appreciations, and motives. These could be rewritten and used as criteria.

(2) Arizona State Department of Public Instruction, *Evaluative Criteria for the Elementary Schools of Arizona.* Phoenix: State Department of Public Instruction, 1951.
A device which utilizes a 5-point scale for appraisal of (a) school environment, (b) equipment and materials, (c) personnel, (d) educational program and instruction, (e) lunch program, and (f) pupil transportation.

(3) Arkansas State Department of Education, *Checklist on Criteria for the Evaluation of Secondary Schools.* (Form F of Annual High School Report.) Little Rock: State of Arkansas Department of Education, 1949. 6pp.
Influenced, apparently, by the Evaluative Criteria of the Co-operative Study of Secondary School Standards. Directly and indirectly suggests criteria for program appraisal. Gauges the material aspects of the school.

(4) Arkansas State Department of Education, *Guide for the Study of the Elementary School.* Little Rock: Arkansas State Department of Education, 1950-1951.
Prepared by the Elementary School council, this Guide is designed for cooperative appraisals. A 4-point scale is used to gauge teacher, plant, curriculum, administration, etc.

(5) Baxter, Edna, *Baxter Group Test of Child Feelings.* (Information on these instruments may be obtained directly from Dr. Edna Baxter, 15 Claremont Avenue, New York 27, N. Y.)
This includes a number of instruments in mimeographed form: (a) "Manual for Baxter Group Test of Child Feelings: Grades 7-9," (b) "The Baxter Group Test of Child Feelings: Grades 7-9," (c) "Baxter Group Test of Child Feelings: Grades 1-6," (d) "The Baxter Parent-Teacher Test of Child Feelings: Grades 1-9." Tests consist of questions to be answered by children, and are concerned with such qualities as friendliness, compliance, honesty, self-control. Questions based upon short stories. Full directions included. An evaluative tool for studying and guiding individual and group development.

(6) Boston University, *Elementary Evaluative Criteria.* Boston University: School of Education, 332 Bay State Road, Boston, Massachusetts, 1953. A product of a graduate study group, this well-packaged booklet may be used to appraise philosophy and objectives of the elementary school

program, curriculum, library, guidance services, school plant, and status of the faculty. Check lists and summaries are an integral part of this device.

(7) California State Department of Education, *Pupil Self-Evaluating Chart.* Sacramento: California State Department of Education, Research Division. (n.d.)
Available in preliminary mimeographed form, the pupil self-evaluations present on interesting idea. They are marked by children during the four yearly report periods, a check (x) showing that a child feels personal improvement is needed in, say, completing work on time or in respecting others' rights.

(8) Colorado State Department of Education, *Self-Evaluation of Elementary Schools in Colorado.* Denver: Colorado State Department of Education, 1956.
A cooperatively developed, 71-page handbook for local school district appraisal. Well-organized scales, summaries, and space for comments are provided for (a) basic information on the school district, (b) school plant, (c) personnel, and (d) curriculum. "Curriculum" is broadly construed to encompass methods, special fields and services, pupil accounting, etc.

(9) Cooperative Study of Secondary School Standards, *Evaluative Criteria.* Washington, D. C.: Cooperative Study of Secondary School Standards, 1950.
A current edition of the evaluative booklet which, perhaps more than any other device, has influenced the format (and to a considerable degree the procedures) of program appraisal materials. Originally developed in the 1930's (see Appendix A, p. 406), the *Evaluative Criteria* consider the community milieu, goals, program, school services, etc. Although originally designed for high school use, the Cooperative Study approaches have been widely adapted for local use below Grade 9. A new edition of the C.S.S.S. instruments should be available in 1960.

(10) Elementary Classroom Teachers Association and Elementary School Principals Association, *Self-Evaluation in the Elementary School* (tryout edition). Elementary School Bulletin No. 11. Trenton: State of New Jersey Department of Education, 1946. 73pp.
Treats (a) curriculum, (b) community, (c) personnel, (d) organization and finance, and (e) school plant. Consists of questions followed by an "evidence" statement to guide the evaluator. Since no check list or scale is included, the booklet seems most useful as a discussion guide in beginning the appraisal process in individual school systems. Several lists of criteria are expressed in terms of children's behavior. Does not always recognize the progressive nature of changes in behavior.

(11) Elementary Education Division, Virginia State Department of Education, *Looking at Our Elementary Schools* (experimental edition). Richmond: State Department of Education, July 1949. 64pp.

To accompany The Characteristics of a Good Elementary School. (See item 53 in this list.) Translates general educational values into specific criteria bearing on the program, school plant, etc.

(12) "Elementary School Self-evaluation: Where Will You Start and How Far Are You Going?" *Pennsylvania School Journal,* 96:301-305, April, 1948.
Available as a reprint through the Pennsylvania State Department of Education. Utilizes a 3-point scale in evaluating (a) school living, (b) personnel, (c) plant, and (d) community relations. Criteria given. Designed for use by local staff.

(13) El Paso Public Schools, *A Guide to a Self-Evaluation Study for the El Paso Public Schools, 1949-50.* El Paso: School Board, El Paso Public Schools, September 1949. 17pp.
A self-rating device developed for use during the school year 1949-50. Includes statements of philosophy and criteria for appraising the teacher as a professional person at work with the school program. Is included here as an example of an approach to the improvement of a local school situation.

(14) Garrison, R. M. (under the direction of), *Ohio Elementary School Standards.* Columbus: State Department of Public Instruction, 1949. 120pp.
This manual is used together with an accompanying pamphlet, described immediately below.

(15) Garrison, R. M. (under the direction of), *Evaluation of Elementary Schools.* Columbus: State Department of Public Instruction, 1949. 8pp.
A statement of values, expressed as standards, this document is accompanied by a leaflet employing a 5-point scale. The scale is intended to indicate the elementary school's status with regard to 18 standards—e.g., library standards—presented in detail in item 7 above. The first standard suggests that each school shall formulate a statement of philosophy and objectives, although subsequent standards suggest what these shall be.

(16) Haggerty, M. E., Olson, W. C., and Wickman, E. K., *Haggerty-Olson-Wickman Behavior Rating Schedules.* New York: World Book Company, 1930. 6pp.
Although generally well known, this item is included as an example of the use of a scale to appraise behavior and behavorial changes.

(17) Henderson, K. B., Hand, Harold, and Goerwitz, John E., *Follow-Up Study of the Illinois Secondary School Curriculum Program.* Champaign: College of Education, University of Illinois, 1948-49. (In several parts, mimeographed and printed.)
Five detailed instruments provide an imaginative and novel approach to the appraisal of a school program by giving graduates a means to

indicate their views on such matters as, How much were you helped by your high school? and How well equipped are you for effective living? Could be adapted for use with children still in school. Questionnaire-opinionnaire forms are used.

(18) "How Good is Your School?" *Life*, 29:54-55, October 16, 1950.
A somewhat oversimplified "Yes" and "No" check list containing 63 items. For use by parents seeking to appraise their local school system. Tried out in 500 schools, this instrument is accompanied by statement of scores made by "best," "average," and "worst" schools. Items included were checked by the Educational Testing Service at Princeton, N. J.

(19) Horace Mann-Lincoln Institute of School Experimentation, *How to Construct A Sociogram* (third printing). New York: Bureau of Publications, Teachers College, Columbia University, 1948. 37pp.
A convenient and explicit presentation of simple sociometric procedures in the classroom. Techniques can be used to further the teacher's study of individual and group relationships.. Introduction includes brief treatment of sociometry.

(20) Idaho, University of, *Let's Take Stock: Time for Inventory.* (Criteria for the Elementary Schools of Idaho.) Boise: University of Idaho, 1950.
Produced in a graduate seminar at the University. A local self-evaluation approach is advocated and criteria are set forth for judging (a) plant and equipment, (b) faculty, (c) community, and (d) curriculum.

(21) Illinois Association of School Boards, *Characteristics of A Good School* (the School Board Reference Library, Pamphlet No. 7). Springfield, Illinois: Illinois Association of School Boards, February 1947. 51pp.
Consists of a "Yes" and "No" check list with sections to be scored by the board of education and by the superintendent, respectively. Touches upon 11 areas: budget, public relations, curriculum, school plant, etc. Designed as a discussion guide. Responses are likely to be influenced appreciably by the subjective values of persons using this booklet.

(22) Kansas State Department of Public Instruction (issued by State Superintendent A. F. Throckmorton), *Better Schools for Kansas Children: A Handbook for Teachers.* Topeka: Fred Voiland, Jr., 1949. 101pp.
A general handbook complete with suggestions for educational practices and organization. Lists 12 criteria for good schools (pp.8-9). These criteria, plus a "Guidelines for Change" section provide bases for appraising the program at the local level. The greater part of the booklet consists of specific suggestions for improving instruction.

(23) King, H. B., *et al.*, *Goals and Objectives Through Curriculum Experiences in the Elementary School.* Dover: State of Delaware Department of Public Instruction, 1949. 154pp.

Essentially a recent course-of-study for Delaware, with desirable emphasis on developmental values as well as subject content. The evaluator will find a number of criteria for the good elementary school program either implicitly or explicitly stated in this booklet, such criteria being expressions of value from the State Department. Organized by subject areas and by grade levels.

(24) Metropolitan Detroit Bureau of Cooperative School Studies, "Evaluation: What? Why? How?" *Action,* 4:1, December 1950.
Published by Detroit area school people. Entire issue deals with the evaluative process. Evaluation procedures in various school systems are specifically described. Generally the articles and accounts given are concerned with appraisal of the school program as a whole. May be ordered from The Metropolitan Detroit Bureau of Cooperative School Studies, 60 Farnsworth Street, Detroit 2, Michigan.

(25) Michaelis, John, and Howard, Charles, "Current Practices in Evaluation in City School Systems in California," *Journal of Educational Research,* 43:250-260, December 1949.
Regional survey which should prove of interest to all persons concerned with evaluation in practice. Presents good picture of current interpretations of appraisal procedures.

(26) Montana State Department of Public Instruction, *A Foundation Program for Elementary Schools of Montana Including Self-Evaluation Basic to Accreditation.* Helena: Montana State Department of Public Instruction, 1951.
Originally developed to ascertain eligibility for state monies, pursuant to state law. Appraises 8 areas: (a) curriculum-teaching-community, (b) teaching methods, (c) health and safety, (d) supplies, (e) library, (f) equipment, (g) buildings, and (h) grounds.

(27) Mooney, Ross L., *Problem Check Lists.* Columbus: The Bureau of Educational Research, Ohio State University, Columbus, Ohio.
  (a) "Problem Check List—Junior High School Form." w/Manual, 1948 (in two parts, v.p.)
  (b) "Problem Check List—High School Form." w/Manual, 1948 (in two parts, v.p.).
  (c) "Problem Check List—College Form." w/Manual, 1948 (in two parts, v.p.).
Useful tools in evaluation. Can be used to gauge changes in individual and group behavior as revealed by attitudes toward problems. Instrument involves use of check lists. Also of value in the guidance program.

(28) Morrison, J. C., and Ruegsegger, Virgil, *A Scale for Rating Elementary School Practice* (reprint of Bulletin 1247). Form I: "A Scale for Rating the Practice of Concepts Involved in Attaining the Cardinal Objectives of Elementary Education." Form II: "A Scale for Rating

Elementary School Practice." Albany: The University of the State of New York Press, 1949. 38 pp.

(29) Mort, P. R., and Cornell, F. G., *A Guide for Self-Appraisal of School Systems.* New York: Bureau of Publications, Teachers College, Columbia University, 1937. 66pp.
A weighted "Yes" and "No" check list with space for anecdotal evidence. Consider (a) instruction, (b) special services for individual children, (c) educational leadership, and (d) physical facilities and business management. Included here with the suggestion that it be compared with more recent devices.

(30) National Association of Secondary-School Principals, "Evaluation in the Secondary School," *Bulletin of the National Association of Secondary-School Principals,* 32:154, April 1948.
Of especial interest to teachers at the high school level. Useful statement of recent use made of the evaluating criteria. The entire issue is given over to this instrument and its uses.

(31) National Citizens Commission for the Public Schools, *What Do We Know About Our Schools?* New York: National Citizens Commission for the Public Schools, 1950. 35pp.
May be obtained by writing to the Commission, 2 West 45th Street, New York 19, N. Y. Composed, for the most part, of questions for discussion by citizens interested in the status and improvement of their schools. Treats programs, material resources, school personnel, administration, etc. Could easily be converted to a check list, but is not set up for use in this form.

(32) National Council for the Social Studies, "Are You A Good Citizen?" *NEA Journal,* 39:612-614, November 1950.
Reproduced in Appendix B of this book. Example of criteria phrased in behavioral terms.

(33) Nebraska State Department of Education, *A Guide for Evaluating and Improving Nebraska Elementary Schools.* Lincoln: Nebraska State Department of Education, 1955.
Initiated at a University of Nebraska workshop in education. Covers the following items: (a) program of studies, (b) guidance, (c) library services, (d) administration and supervision, (e) personnel, (f) home-school-community relations, and (g) plant and equipment.

(34) New Mexico State Department of Public Instruction, *Evaluation Handbook for Elementary Schools.* Santa Fe: New Mexico State Department of Public Instruction, 1956.
Seven broad sections in this instrument deal with (a) philosophy and objectives, (b) general operational practices, (c) through (e) primary, middle, and upper grade activities, (f) plant and equipment, and (g) staff evaluation.

(35) New York State Department of Education, *Elementary School Inventory*. Part I: Check-Lists (3d edition). Albany: The University of the State of New York, 1941. 54pp.
For use in re-examining elementary school theory and practice. Primarily for in-service self-evaluation. Utilizes check lists concerned with (a) curriculum practices, (b) school organization, (c) parent and community relations, and (d) records, evaluation of pupil progress, and reporting. Permits evaluator to suggest "next steps" in improving the program and to indicate both the presence or absence of a quality or condition, and whether or not it is deemed desirable.

(36) New York State Department of Education, *Elementary School Inventory*. Part II: Digest of Publications (3d edition). Albany: The University of the State of New York, 1941. 40pp.
For use with Part I of the inventory in re-examining elementary school theory and practice. Companion to item 17 above. Documents the viewpoints expressed. References now are somewhat dated.

(37) Office of Education, *How Democratic Is Your School?* Washington, D. C. Federal Security Agency, Office of Education, Bulletin, 1949. 8pp.
Check list suitable for in-service study and discussion.

(38) Ohio State University, Bureau of Educational Research (in conjunction with other agencies) has produced the following:
   (a) *A Manual for the Ohio Guidance Tests for Elementary Grades* (several authors), 1946. 29pp.
   (b) *The Ohio Thinking Check-Up: For Intermediate Grades.*
   (c) *The Ohio Recognition Scale: Who's Who in My Group: For Intermediate Grades.*
   (d) *The Ohio Social Acceptance Scale: For the Intermediate Grades.*
   (e) *The Ohio Interest Inventory: For the Intermediate Grades.*
   (f) *The Ohio Individual Summary Sheet for Committee Selection.*
   (g) *The Wishing Well.*
   (h) *Social Sensitivity Ballot.*
   (i) *Self-Portrait N* (Form A, Elementary Series).
An unusual battery without counterpart. In the aggregate, the instruments are useful means to the study and guidance of individual behavior and intragroup relationships.

(39) Olson, Willard C., *The Behavior Journal* (3d edition). Ann Arbor: University Elementary School, University of Michigan, 1948.
Includes instructions for use of the Behavior Journal, a form for recording a child's behavior as he progresses through the elementary school. Designed for use by the classroom teacher or other staff members working directly with children. Eleven uses for the Journal are suggested, e.g., reveals gaps in curriculum planning, stimulates study of individual child, supplies material for appraisal and research.

(40) Pennsylvania Department of Public Instruction, "Elementary School Self-Evaluation." Reprint from the *Pennsylvania School Journal,* April 1948. Published by the Pennsylvania State Education Association, 400 North Third Street, Harrisburg, Pa. 7pp.
See annotation for item 12 above.

(41) Philadelphia School District, Board of Public Education (from the Division of Educational Research).
  (a) *Open-Mindedness Techniques: Problem Solving, Group Thinking Leading to Action.* April 5, 1948. 1p.
  (b) *Open-mindedness Study Evaluation Committee: Elements in Satisfaction of Emotional and Social Needs of Children.* March 8, 1948. 1p.
  (c) *Open-Mindedness Techniques: Problem Solving, Group Thinking Leading to Action.* November 9, 1948. 1p.
These are 5-point scales for appraising the items suggested by the titles.

(42) Putnam, Rex (State Superintendent of Public Instruction), *Check-Chart for Standardization: Oregon Elementary Schools.* Salem: Oregon State Department of Public Instruction, 1947.
A rating scale concerned with: (a) instruction, (b) administration, and (c) school environment. These elements are checked as "satisfactory," "not satisfactory," or "undetermined." Stated purpose of the instrument is for self-evaluation.

(43) Remmers, H. H., and Bauernfeind, R. H., *Junior Inventory—Form S.* Chicago: Science Research Associates, 1957 (rev. ed.).
A problem check list designed for use with children in Grades 4-8. Somewhat similar in purpose to the Mooney Problem Check List designed for the junior senior high school level.

(44) Shane, Harold G., *An Evaluative Audit of the Elementary School Program.* Evanston, Illinois: School of Education, Northwestern University, 1958.
A comprehensive device with a 4-point scale for making an audit or survey of educational practices and conditions. Appraises educational goals, administration, teacher and pupil personnel policies, home-school-community relations, plant and maintenance, curriculum, and special services and special fields. One section provides for analysis of problems and questions raised by the local staff. Section for summary of the evaluative audit concludes the booklet. Not a self-evaluation device, but designed for use by visiting consultants.

(45) Shane, Harold G., "School before Six," *National Parent-Teacher* 45:7-9, February 1951.
Contains a simple check list for parents to use with nursery school directors in appraising the program. Considers staff, school environment, daily program, and parent relations.

(46) Smith, S. June, *We Learn About Our Feelings.* Elgin, Illinois: The Continental Press, 1949. 32pp.
This provides workshop-type material for use with children in Grades 4-6. Entries made by child may suggest individual needs of a personal-social nature. Also may reveal group needs. A novel, if not unique, adaptation of the conventional workbook. Helpful in evaluative programs which focus on behavioral changes.

(47) South-Wide Workshop on Elementary Evaluation, *Elementary Evaluative Criteria* (tentative edition). Volume I—Criteria. Nashville, Tennessee: George Peabody Teachers College, 1949. 42pp.
For use with the workbook described below. (Also see item 48 for a companion publication.) A promising example of cooperative group work, the products of the South-Wide Study are interesting examples of the more comprehensive attempts at evaluation recently undertaken. Treats viewpoint, functions of the elementary school, program, resources, and planning.

(48) South-Wide Workshop on Elementary Evaluation, *Elementary Evaluation Criteria* (tentative edition), Volume 2:—Workbook. Executive Committee of the Southern Association's Cooperative Study in Elementary Evaluation. 1949. 102pp.
Appraisal scale with four points to be checked in terms of the extent to which certain practices or conditions obtain in a given elementary school. Considers (a) viewpoint, (b) functions, (c) program, (d) resources, and (e) planning. Superficially similar to the secondary school evaluative criteria. May be used for self-evaluation or by a visiting committee. One of the most comprehensive devices available. (See item 47 above for description of Volume I which is used with this workbook.) This instrument replaces the earlier (1948) "Scale for Rating the Elementary School Plant."

(49) Southern Association's Cooperative Study in Elementary Education, *Evaluating the Elementary School: a Guide for Cooperative Study.* Atlanta, Georgia: The Southern Association's Commission on Research and Service, 1951.
A sound and thoughtfully developed evaluation instrument. Somewhat difficult to use without careful preliminary preparation because of the descriptions of behavior and other data to be recorded and weighed.

(50) Teacher Education Workshop, *Is Yours An Excellent School?* (Purpose-Program-Personnel-Plant-Progress). Nashville, Tennessee: Division of Surveys and Field Services, George Peabody College for Teachers, March 1948. 48pp.
Statement of values expressed as criteria to be sought in the elementary school. Contains lists of self-evaluative questions useful for in-service study. Could be adapted for use as an evaluation instrument by the local staff.

(51) Texas State Department of Education, *Handbook for Self-Appraisal and Improvement of Elementary Schools.* Austin: Texas State Department of Education, 1950.

Produced over a period of years, on a cooperative basis, under the direction of Edgar Wilson (State Director of Elementary Education) and Henry J. Otto of the University of Texas who served as consultant to the Department. Five "levels of achievement" are described in detail, and serve as guidelines for educational appraisal. (See Chapter 11, page 276 f, for a reproduction of a portion of this interesting use of educational levels as an approach to program evaluation.) Along with the Southern Association's guide (item 48 above) this instrument is representative of the more detailed approaches made in elementary school evaluation. Designed for self-appraisal, the Texas Handbook touches upon: (a) the children, (b) the teacher, (c) program of school life, (d) equipment and supplies, (e) home-school-community relations, (f) campus, and (g) administration and supervision. General statements regarding educational values and specific criteria are included. A large master score sheet is provided. Highly useful for intensive local study of the elementary school. (Includes mimeographed enclosure: "Suggested Study Program for Use of the Handbook.")

(52) University Elementary School, University of Michigan, *Teachers' Record of Child Performance.* Ann Arbor: University of Michigan, 1940. 11pp.

Detailed record form covering nine years of longitudinal growth by the child. Includes accomplishments, interests, participation, standard test records, etc. Useful for long-term study of development.

(53) Virginia State Department of Education. *The Characteristics of a Good Elementary School.* Richmond: State Department of Education, March 1949, Vol. XXXI, No. 5. 53pp.

States values to be sought in the elementary school. Touches on program, personnel, plant, and planning. Value statements readily could be adapted to serve as criteria in an evaluative project.

(54) Warner School Staff, *Criteria for Teacher-Evaluation and Improvement of Theories and Practices of Warner School.* Nashville, Tennessee: Warner School, 1949. 22pp.

Example of a locally developed device for self-evaluation. Contains criteria for use with check list. Deals with (a) school philosophy, (b) administrative practices, (c) personnel, (d) democratic practices, (e) school program, (f) library, (g) visual aids, and (h) community relations.

(55) West Virginia Elementary School Principals Association, *Criteria for Evaluating Elementary Schools.* (No publisher given.) Sixth Yearbook of the West Virginia Elementary School Principals Association, May 1941.

This yearbook has 8 divisions which consider administration, staff, plant and equipment, philosophy and objectives, etc. Influenced to some extent by the evaluative criteria.

(56) West Virginia State Committee and State Department of Education, *Criteria for Evaluating School Growth, Elementary and Secondary, in a Twelve-Year Program.* Charleston: West Virginia State Department of Education, 1950.
An instrument designed to encourage cooperative study of the educational program at all grade levels. Involves a 5-point scale which is applied to five areas: (a) school organization, (b) curriculum, (c) use of instructional materials and resources, (d) pupil growth, and (e) community relations.

APPENDIX D

A Directory of Publishers Producing Evaluation and Testing Materials

THE 24 publishers listed below are firms, bureaus, and educational presses from which one can obtain materials for use in testing and evaluation programs. All of the publishers welcome inquiries, and at least one company offers advice on local appraisal programs. This is the Educational Testing Service (see item #9) which has a special *Evaluation and Advisory Service* available without charge.

(1) Acorn Publishing Company, Inc., Rockville Center, New York.

(2) Bureau of Educational Measurements, Kansas State Teachers College of Emporia, Emporia, Kansas.

(3) Bureau of Educational Research, The Ohio State University, Columbus 10, Ohio.

(4) Bureau of Educational Research and Service, State University of Iowa, Iowa City, Iowa.

(5) Bureau of Publications, Teachers College, Columbia University, New York 27, New York.

(6) California Test Bureau, 5916 Hollywood Boulevard, Los Angeles 28, California.

(7) Center for Psychological Service, George Washington University, Washington, D. C.

(8) Educational Test Bureau, Educational Publishers, Inc., 720 Washington Avenue, S. E., Minneapolis 14, Minnesota.

(9) Educational Testing Service (Cooperative Test Division), 20 Nassau Street, Princeton, New Jersey, and 4640 Hollywood Boulevard, Los Angeles 27, California.

(10) C. A. Gregory Company, 345 Calhoun Street, Cincinnati 19, Ohio.

(11) Grune-Stratton, Inc., 381 Fourth Avenue, New York, New York.

(12) Harvard Press, 44 Francis Avenue, Cambridge, Massachusetts.

(13) Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

(14) Ohio Scholarship Tests, Ohio State Department of Education, State Office Building, Columbus, Ohio.

(15) Joint Committee of United Business Association and National Office Managers Association, 132 West Chelten Avenue, Philadelphia, Pennsylvania.

(16) Personnel Press, Inc., 180 Nassau Street, Princeton, New Jersey.

(17) Psychological Corporation, 552 Fifth Avenue, New York 36, New York.

(18) Public School Publishing Company, 204 West Mulberry Street, Bloomington, Illinois.

(19) Science Research Associates, Inc., 57 West Grand Avenue, Chicago 10, Illinois.

(20) Sheridan Supply Company, P. O. Box 837, Beverly Hills, California.

(21) Stanford University Press, Stanford, California.

(22) State High School Testing Service for Indiana, Purdue University, Lafayette, Indiana.

(23) C. H. Stoelting Company, 424 North Homan Avenue, Chicago 24, Illinois.

(24) World Book Company, 313 Park Hill Avenue, Yonkers 5, New York.

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